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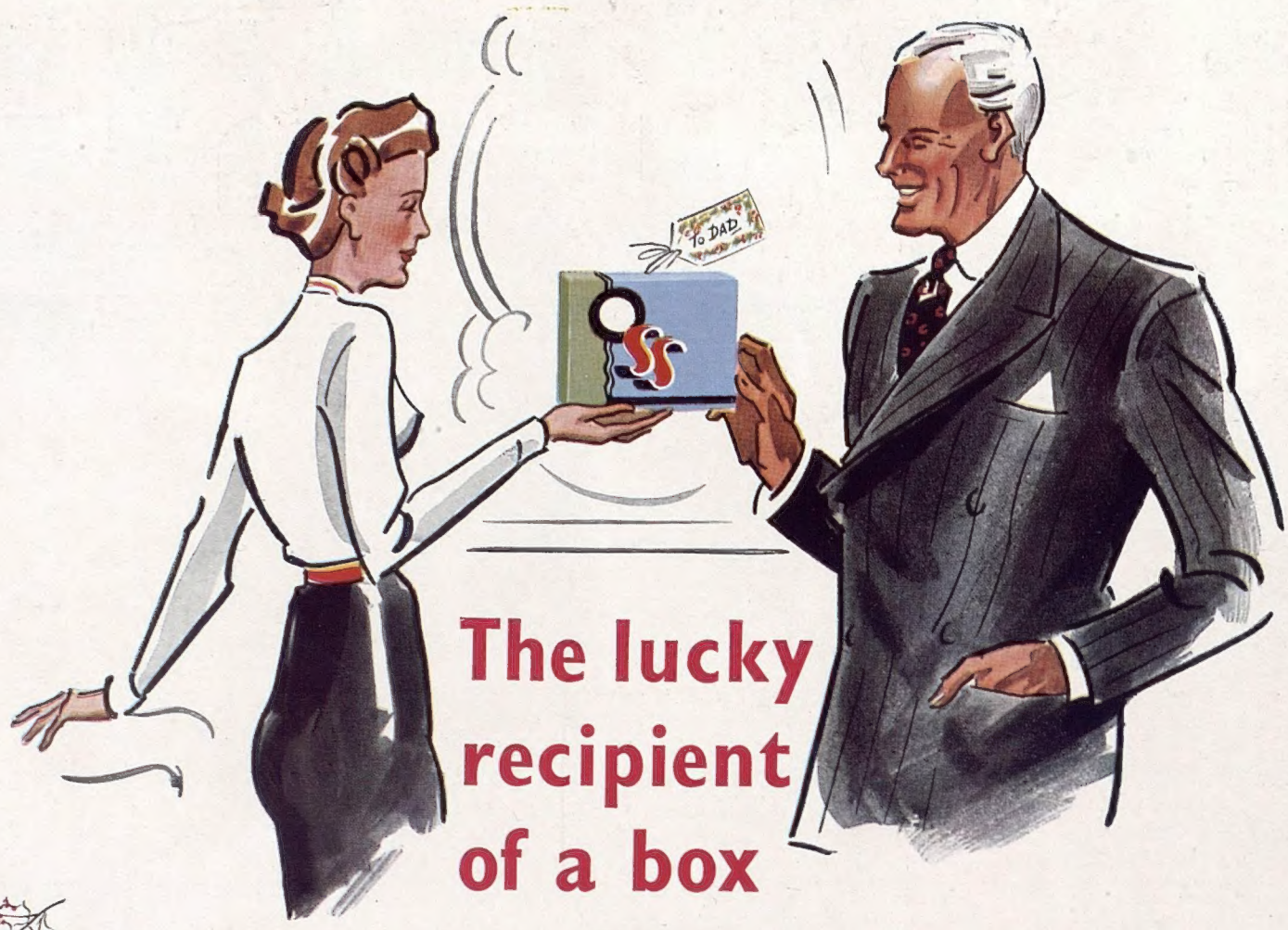

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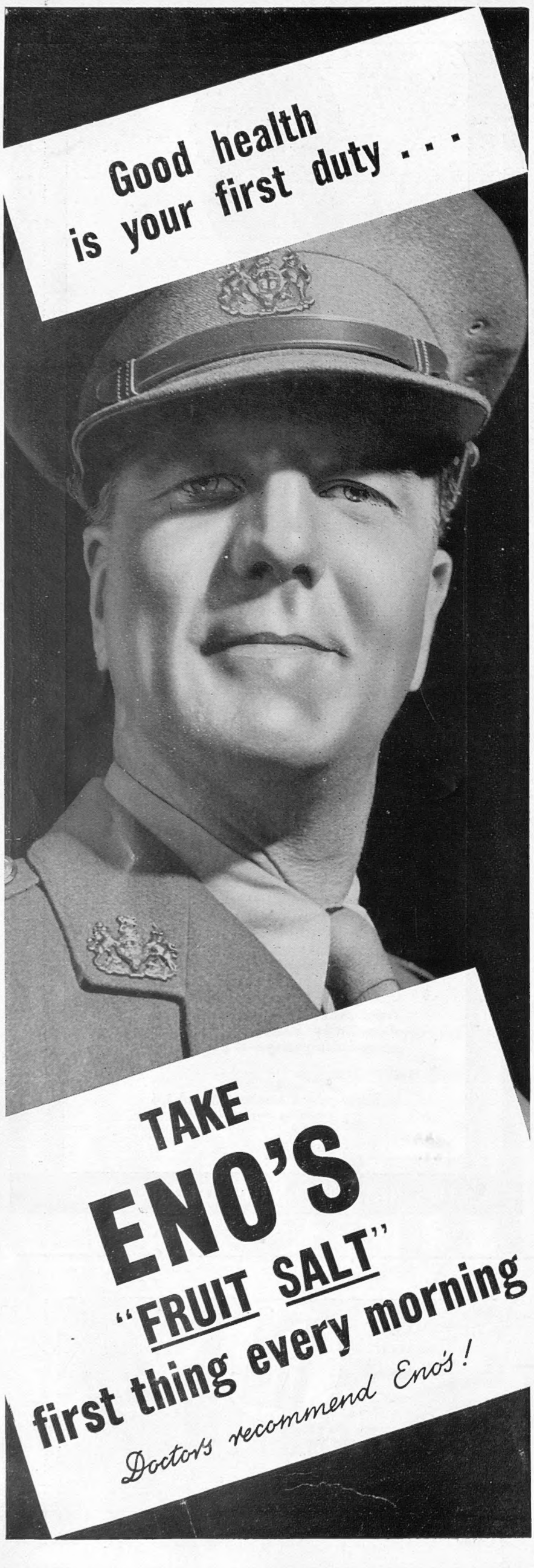

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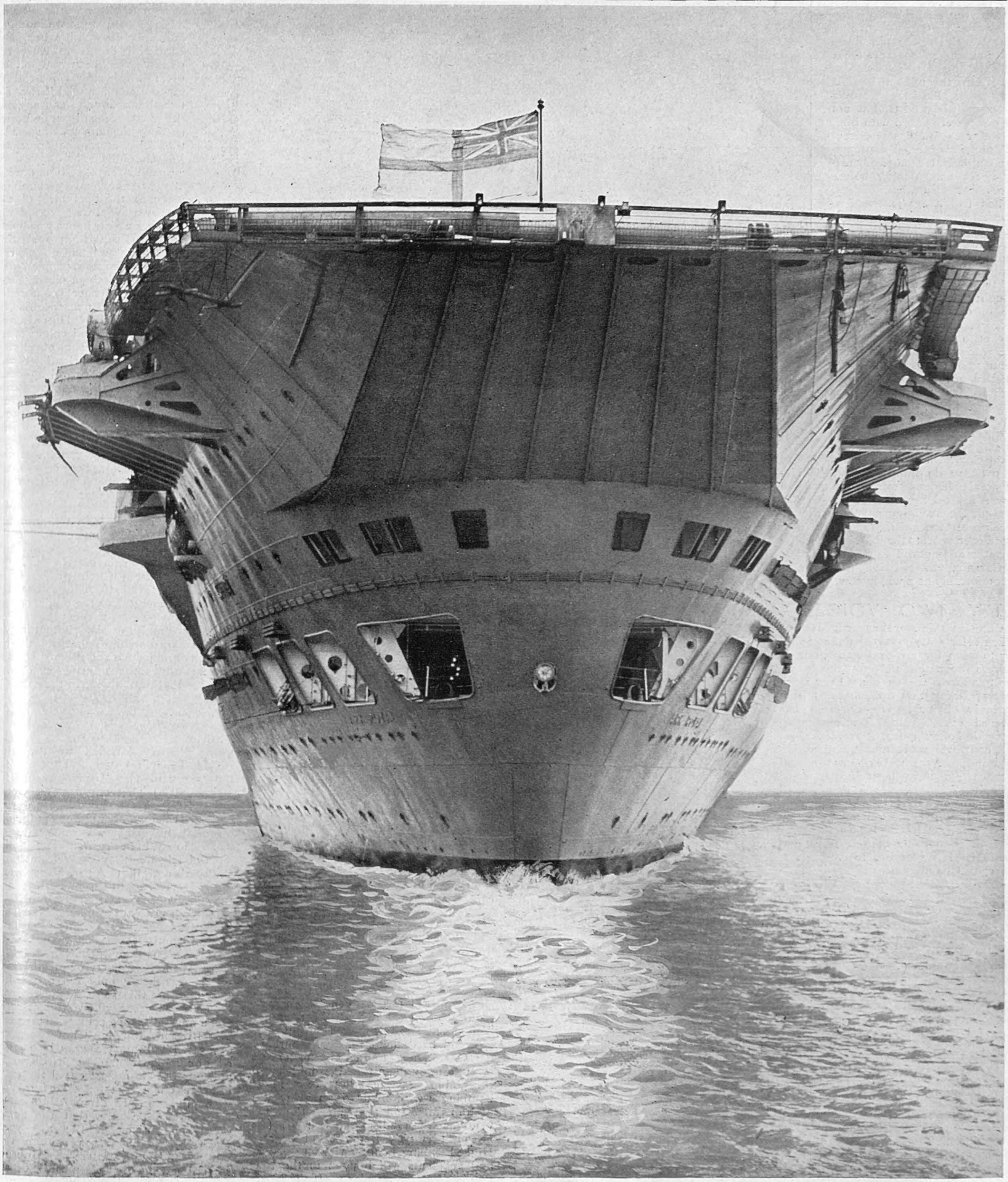

THE "ARK ROYAL" VERSUS THE ITALIAN NAVY

The Many-times-sunk Aircraft-Carrier Now in the Mediterranean

As a result of the action at Taranto, and the subsequent naval engagement against the Italian Navy off Sardinia, the Aircraft-Carrier has been overwhelmingly vindicated. In the past, criticism has been made of the unwieldiness and vulnerability of these huge vessels; but both recent actions in the Mediterranean have proved their worth. Without Carriers, in fact, the attack on Taranto could not have been carried out, nor could our subsequent successes off the Sardinian coast have been registered. Protected by destroyers and other craft (like our big battleships, in fact), the Aircraft-Carrier can carry out the deadliest execution amongst the vessels of a fleet which is attempting to avoid action. H.M.S. *Ark Royal* has many times been "sunk"—but only on the radio; she, and others of her class, are likely to figure even more largely in any development of the war at sea

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A WAR NEWSLETTER—No. 66

32–34, ST. BRIDE STREET, E.C.4

THE DUCE'S BAD QUARTER-HOUR.—

The more I read and collated the best sources of information from the Near Eastern and African theatres, the more certain I became that the Duce had had his tail twisted and had been through a terrible experience. He may get over it. It may be that God is not yet completely bored with him, as we are. He has resources still, and powerful, if contemptuous, allies. He may be boasting again and bluffing before Christmas. But, by heavens, he has had a big jolt, and so have his heady, criminal mouthpieces. Poetic justice is the sweetest and rarest prize which comes to those who have borne insults and treachery too long, and the last weeks of November brought to us the most welcome cup of cheer we can call to memory. The whole world laughed openly or in its sleeve (according to its position and circumstances) as the wind whistled out of the Fascist gas-bag and the huge and monstrous fabric of this pricked balloon sagged and wrinkled and expired in wheezes. The heir of Caesar lay stabbed in a score of places on the Capitol steps, "with none so poor to do him reverence." His invincible legions were running like hares, his mighty fleet was half submerged, his avenging angels of the air were proved too swiftly fallen angels to afford even sport to the R.A.F. And the Dictator of Imperial Rome, the Caesar of Caesars, was chewing his words as uncomfortably as a windy cow.

MR. CHURCHILL'S OWN FIGHTER SQUADRON OF THE R.A.F.: No. 615 (County of Surrey) has one of the most interesting histories of any Auxiliary Squadron. They have brought down nearly 100 enemy machines, and have been awarded one D.S.O. and six D.F.C.s. The Squadron was formed in June, 1937, at Kenley as an Army Co-operation Squadron; it was converted into a Fighter Squadron in 1938. In 1939 Mr. Winston Churchill was made its Honorary Air Commodore. It served in France, being the first Auxiliary Fighter Squadron to go overseas, and later served in Belgium. In this picture of the pilots, the squadron-leader is the officer on the extreme right

THE TWO VOICES.—

Nothing in this war has proved more difficult for statesmen than the necessity to keep for use two voices, one to address the nation and our friends and one to address the enemy. Ever since the war began that difficulty has been glaringly obvious. The dilemma has covered every form of utterance to every kind of audience. Several famous and controversial instances will spring to mind. Approved or semi-official broadcasters have been in the same difficulties. Some have said or promised too much, some too little. Mr. Churchill has clearly felt the dilemma, and in recent months has got into the wise habit of committing himself as little as possible. His promises to Greece and his critics have gone no farther than "we will do what we can." Wise men read between the lines, read the daily bulletins from the seats of war, and approve Mr. Churchill's moderation. Lord Lothian's very frank admission to America, following his conversations with ministers over here, provides a recent *locus classicus*. The Germans hailed it as a sign of our approaching bankruptcy, and radiated it across the Axis and the world. Yet Lord Lothian *must* have spoken strictly by his brief. Clearly, the Government knew that the constitution of the United States is a slow-moving machine and that strenuous efforts must be made in advance to move the wheels for even more comprehensive and vital aid by America to the cause, now in the sphere of credits and finance, before that aid becomes imperative. We know these things, but Lord Lothian's remarks came to us nevertheless as a cold douche, and an inflow from the hot tap was obviously called for on this side, to warm us up again a trifle and to dilute Nazi satisfaction.

JACK'S THE BOY.—

When it comes to talking give me the silent service. And this is not so much an Irish bull as a self-explanatory truth. The sailor is far and away the best talker or writer on his own subject and, set beside him, all the talkers of the B.B.C. and expert service writers are sad stuff. Style in oratory or prose is nothing but relevance. Exaggeration spoils it. Under-statement may well improve it. Side issues detract from its force. Your sailor knows how to set forth in simple, forceful language the essentials of a narrative of events. The literature of adventure enjoys a high degree of excellence and sailors have been largely responsible for that part of it which deals with Arctic and Antarctic exploration, which as a section of the literature of adventure has perhaps the highest average of merit. We have heard recently on the wireless nothing much better than the account of Taranto given by a naval commander. Some, but not all, of our Air Force officers possess the qualities of sailors in narration—Sir Philip Joubert is an exception. In a word, the silent service, because it knows how to ration words, has the secret of style which for ever eludes a majority of professional writers and talkers.

REFLECTIONS ON 1940.—

It is the time for another review as another year draws to an end. I have been asking myself what (in the fog and fury of war) are my real and cool opinions about some of the matters which have most preoccupied us and proved the chief topics of discussion or criticism. From the start of the war and through all our reverses and disappointments I am clear in my mind that I never doubted the temper and courage and power of endurance of Britain, and that I never conceived it possible that the British Empire could be beaten by the German Reich. If I have never been able to visualise a method by which a military victory can be achieved, except after the moral breakdown of the German people or the break-up of the Nazi regime, that failure may perhaps be put down to sheer military inexperience. Germany is a long way off, and between it and Britain lie countries covering an enormous front which, however well disposed towards a British victory they may be or become, are totally disarmed and can hardly be expected to welcome the fate of becoming once more a battleground. We badly want to win back the nearest Channel ports in France, but, if we could cut out even two of them, could we hold them? We might attack the Reich through Austria one day? If Italy were brought to her knees, a back door would be opened, some say. That prospect of an approach via the Brenner seems to my ignorant mind a distant prospect in terms of time and space. In short, while the enslaved nations of Europe remain unarmed and some of them half-hearted or definitely pro-Axis, I find it difficult at present to comprehend in what direction in *Europe* the fruits of our army training for offensive operations can be employed. I hope that that failure may be put down to my abysmal ignorance.

NIGHT BOMBING.—

Let us turn to air bombardment. It is borne in upon me that, if there were no night bombing, we should obtain mastery of the air in a very short time by the crippling toll which we always take of enemy planes operating by day. Night bombing has taken terrible toll of German war and industrial output: it has taken toll of our output also, but the balance is enormously in our favour to date. Night bombing has from a military point of view *paid* us more than it has paid the Germans. It has, however, cost us far more dearly in human life and treasure; so much so that it has been impossible not to regard night bombing (thanks to the Nazi methods) as a devilish imbecility on both sides which cries to Heaven. Like reckless, ill-tempered children (a neutral observer, if such there be, might say) the combatants, in a sheer orgy of reprisal, are battering down the glories of civilisation which can never be replaced, and are not thereby shortening the tragedy of war. I believe there is no solution to this super-tragedy. If (say) Mr. Roosevelt put up to the combatants as a Christmas present a strong plea for a convention to end night bombing, I believe Hitler might be inclined to accept it. If he did so, it would be difficult for Mr. Churchill to refuse, in face of and amid the prayers of suffering humanity. It would be no acceptable answer that *our* night bombing was conducted on principles of humanity and regard for the conventions of civilisation, because (we know) it is only a matter of degree. Night bombing is not an exact science, and accidents will happen in the best regulated bombing plans. If the Nazis have slain deliberately in thousands of innocent lives, we have doubtless slain in mischance in tens. I see no end to the horror, yet in my heart I am increasingly conscious of its supreme beastliness and imbecility, while I recognise its inevitability.

A SENSE OF PROPORTION.

—One may deplore (but one would be a fool to condemn) the constant lack of logic which is revealed in the justifiable bias which weighs nearly all our official reports of enemy action. It is impossible to conceal our bitter hate in this war to the death, this "all-in" contest. It is perhaps foolish to pretend a calm, judicial mentality we cannot attain to. I myself always deplored the earlier boastings in which we indulged and was thankful when Mr. Churchill began to trust the nation's resolution and to offer them hard stones instead of fancy bread; and I have detested as much as anyone, the petty, small-minded sarcastic inflexions and asides of the B.B.C. news readers whose job should be as impersonal and unbiased as a typesetter's. We were heavily snubbed when at the beginning of the war we ventured to doubt whether a year hence we should maintain the high Christian ideal that "we had no quarrel with the German people" and would meet them as brothers round the peace conference table. That nonsense is no longer talked. Hatred and loathing grow and colour every aspect of our war effort and that hatred and loathing will not die at the word of command before the next Peace Treaty. War is the prime preserver of hate. From these haphazard notes upon burning questions of the hour, little that is clear or conclusive can be drawn. Indeed, the only clear lesson which can be claimed to be derived from it is that all wars in general and this war in particular are orgies of insanity, cruelty, injustice and bestiality. That they are always fought by amateurs, since the science of war changes from day to day, and that that nation which proves itself the most determined, which has the clearer conscience and the nobler cause, which is most elastic to react to changed conditions and to take the initiative, which retains the highest possible degree of sanity and justice and proportion, and longest endures the sufferings which war entails—that nation wins in the end.

FACTS COUNT . . . BUT.—

At the close of 1940, Goebbels and Co. were perhaps justified in declaring (if not believing) two bull points for the Axis and two "bear" points for Britain. (1) That our finances would not stand the strain beyond the spring and that then we should depend for our essential imported war materials on American aid in credits and gold. This conclusion they drew from Lord Lothian's remarks to American reporters on his return to the States and they drew confirmation from dismal Kennedy's general Jeremiads. (2) That British mercantile shipping was in a bad way; that the position was more deadly serious than in the worst of 1917 and that the Nazi harrying of our trade routes was being only too successful. Previously on this page, I have referred to the "two voices" with which statesmen and ambassadors are compelled to speak. The British public must not be unduly depressed but must always be shaken out of complacency. The British public and our friends must be told the truth but the enemy must not be furnished with military information. All the same, it does seem a pity that the democratic institutions of the two great English-speaking races require that vital, confidential matters affecting our secret finance and trade must be broadcast first to the world via reporters or on the wireless in order that the way may be paved for pushing the slow machinery into motion to the necessary ends. The democracy for which we are fighting is in its very nature often our greatest handicap to victory. We have to preserve its very existence in spite of itself, and we can only succeed by alternate applications of stimulants and cold douches, by putting up a minister to contradict the spokesman of the previous day, by blowing hot and cold and hot again.

THE OLD STAGER

'HIS MAJESTY IN THE BRIEFING ROOM: Listening to the Wing Commander as he details to the Bomber crews important last-minute information to help them during the coming raid

THE KING WITH THE NIGHT BOMBERS

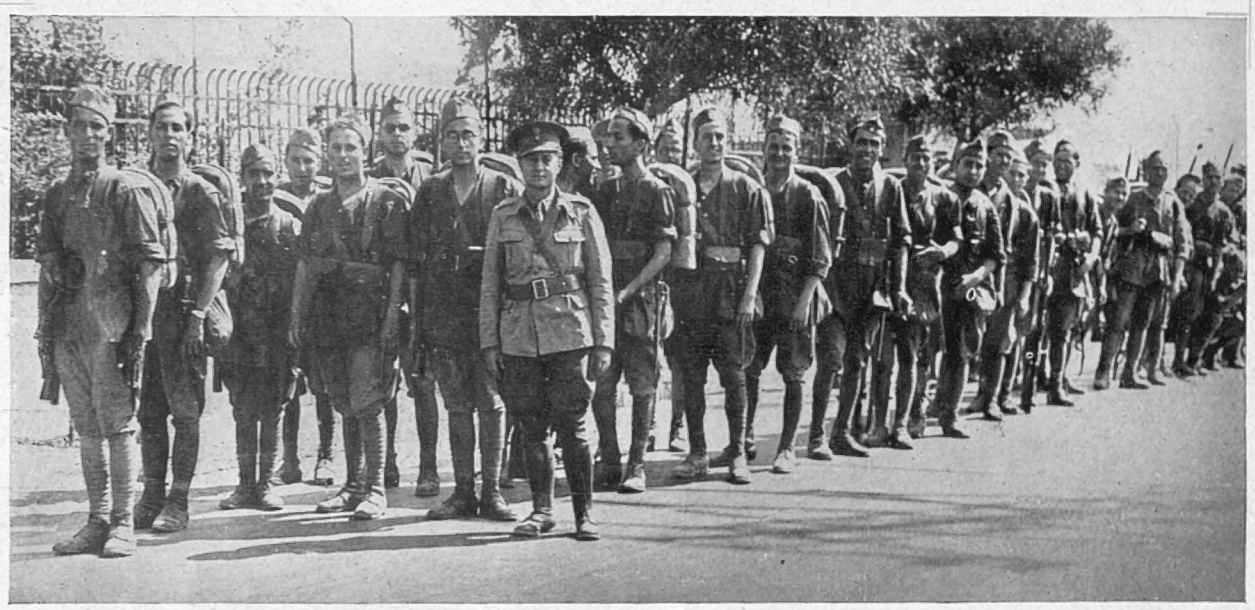
THE KING, WITH AIR MARSHAL SIR RICHARD PEIRSE, C.-IN-C. BOMBER COMMAND (ON LEFT), AND AIR VICE-MARSHAL J. E. A. BALDWIN (RIGHT), EXAMINES MAPS IN THE "BRIEFING ROOM"

The King has just paid a visit to a station of the Bomber Command, where he actually witnessed the departure and return of bomber crews after an attack on enemy territory. On arrival at the station in the evening, the King visited the "Briefing Room," where the crews of the night bombers received their instructions and information regarding the targets they were to attack. Following this came a visit to the Crew Room, where pilots, navigators, gunners and wireless operators were donning their kit for the long and cold flight to Germany. While the planes were winging their way over the Channel the King dined in the Officers' Mess. At midnight, when the first machine returned home, he listened to the interrogation of the crews. As they returned, one by one, he was greatly interested in the accounts of the flights, some of which had been made over Cologne and which had met with marked success

AFTER THE RETURN FROM COLOGNE: The King returns from the Officers' Mess to listen to the interrogation of a crew (whose departure he had previously witnessed) on their return from a successful bombing attack on Cologne. The King spent many hours at this R.A.F. station and saw the many activities during actual operations

The GREEK CAMPAIGN in the ALBANIAN HILLS

MOVING UP TO THE FRONT: Units of the Greek Army going into action. In this mountainous country, with few good roads, the Greeks are using mules for the transport of their war material—slow, but much surer than lorries



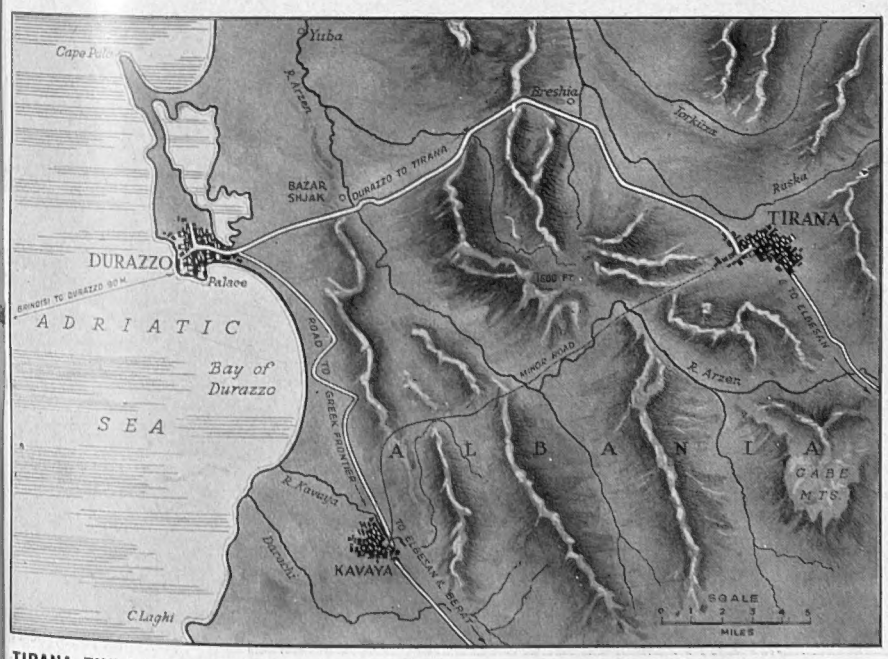
A REGIMENT OF GREEK INFANTRY SETTING OFF FROM ATHENS FOR THE FRONT: The soldiers of our Ally are in the best of spirits and their fighting qualities have already earned them great praise from all observers

BRITISH AND GREEK SOLDIERS FRATERNISE: The Greeks are distinguished by their "pudding-bowl" type of steel helmet. Their equipment otherwise closely resembles that of the British Army before the introduction of "battle dress"

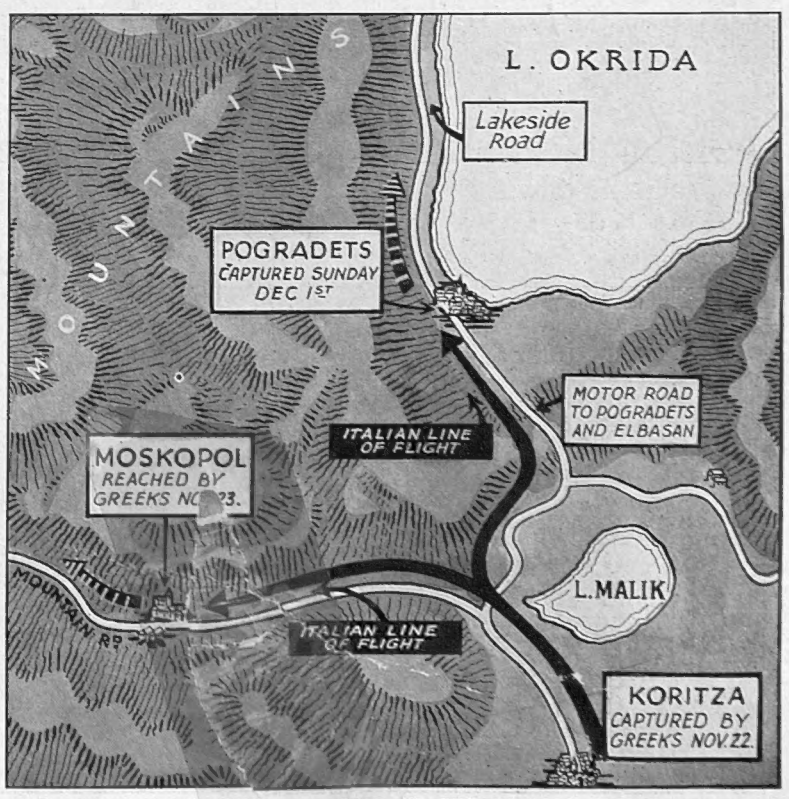
THE NEW ITALIAN BASE TO THE NORTH OF ALBANIA: Owing to the severe bombing of Valona and Durazzo, the Italians have been forced to use S. Giovanni di Medua as a new supply base

Drawing by Roland Davies

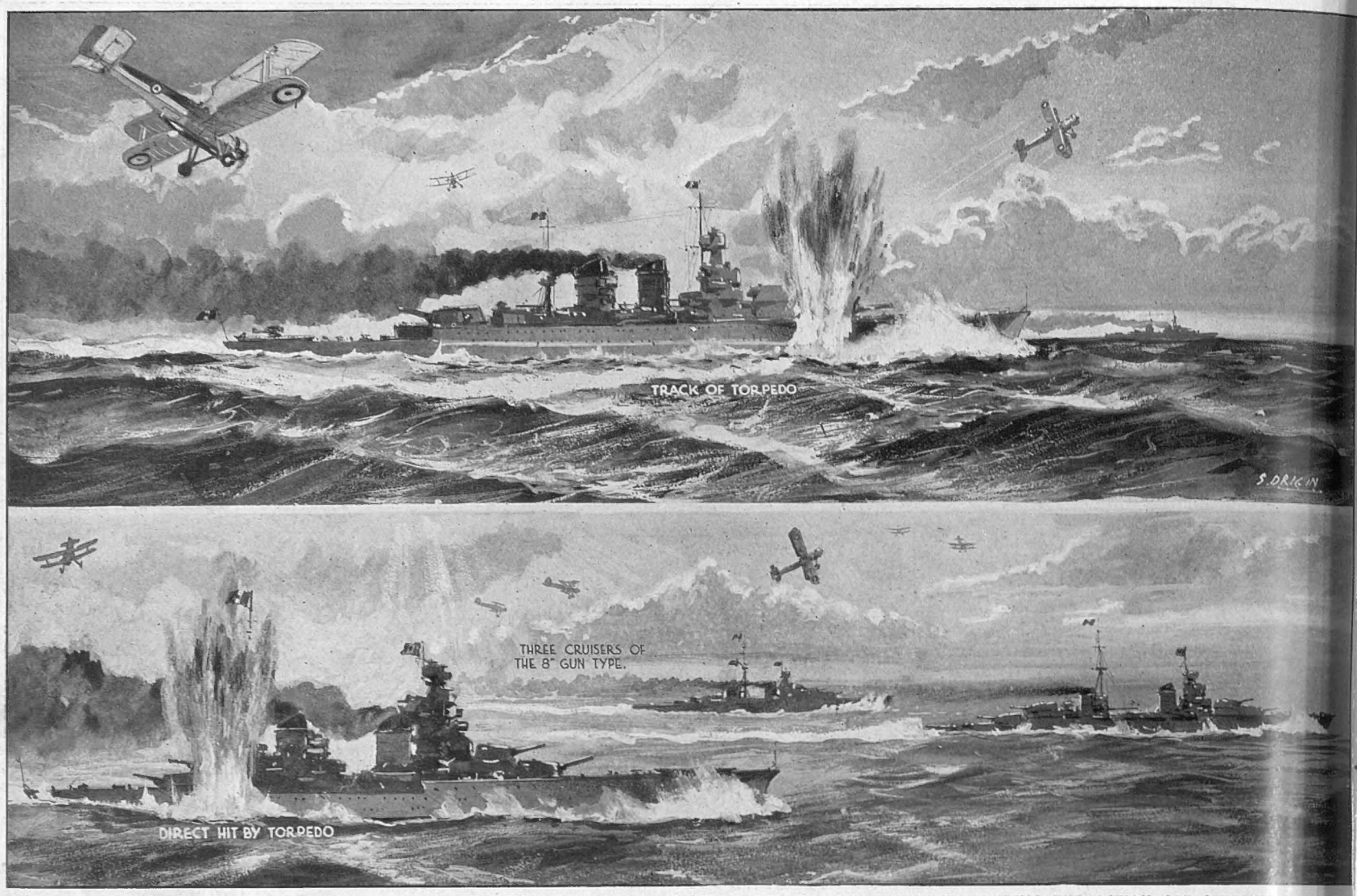
THE R.A.F. PLAY HAVOC WITH THE RETREATING ITALIANS IN ALBANIA: Bombers attacking Road Convoys in the Rugged Albanian Passes: A feature of the fighting amongst the rocky hills of Albania has been the great support provided to the advancing Greeks by aircraft of the R.A.F. Mechanised transport and retreating troops have alike been bombed in the mountains, where the few good roads have enabled the R.A.F. to concentrate their attack to the greatest advantage. Flying along the mountain passes is a tricky business; but its usefulness is demonstrated by the routs amongst the enemy



TIRANA, THE CAPITAL OF ALBANIA, WHICH IS NOW PRACTICALLY USELESS TO THE ITALIANS: This town lies in a plain amidst the surrounding hills; and in its vicinity is one of the few Albanian aerodromes. Owing to the rapid advance of the Greeks, and to the bombing of Durazzo by the R.A.F., Tirana now lies in a very dangerous position. The Italians are, of necessity, now operating from points much farther to the North and West

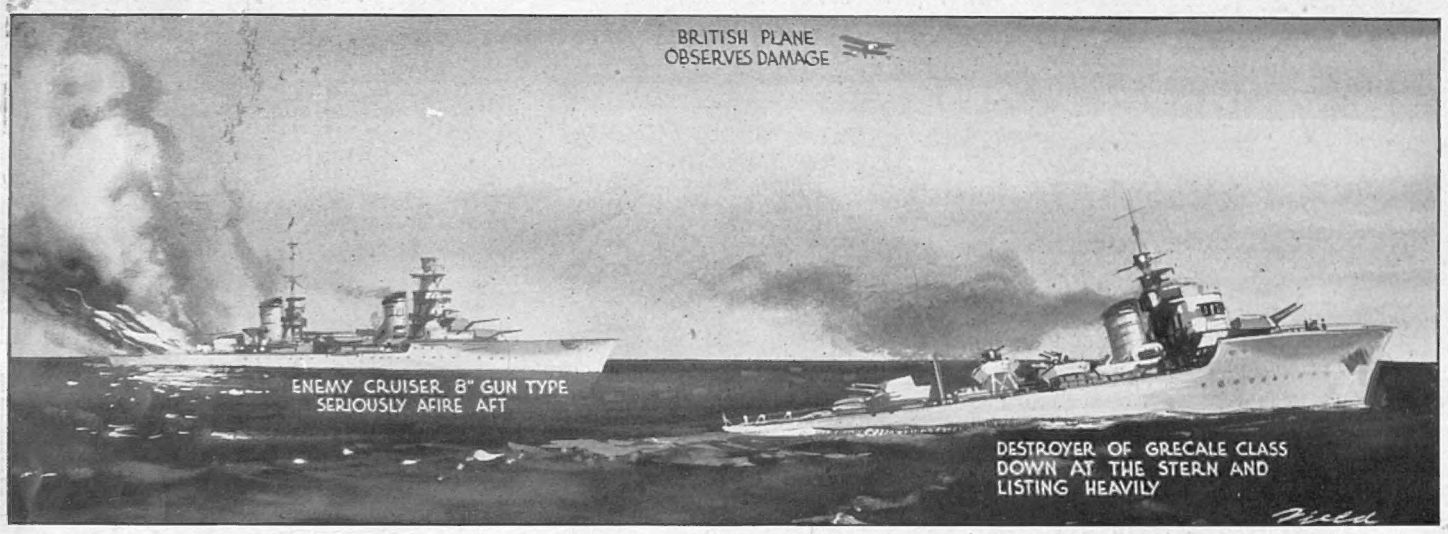


HOW THE GREEKS HAVE ADVANCED IN THE KORITSA SECTOR: From the capture of Koritsa on November 22 the Greeks have pushed on to Pogradets and beyond: they are a score of miles beyond Pogradets at the moment of writing; and pushing ahead along the Okrida road to the North and beyond Moskopol to the West. Good roads in this neighbourhood are scarce



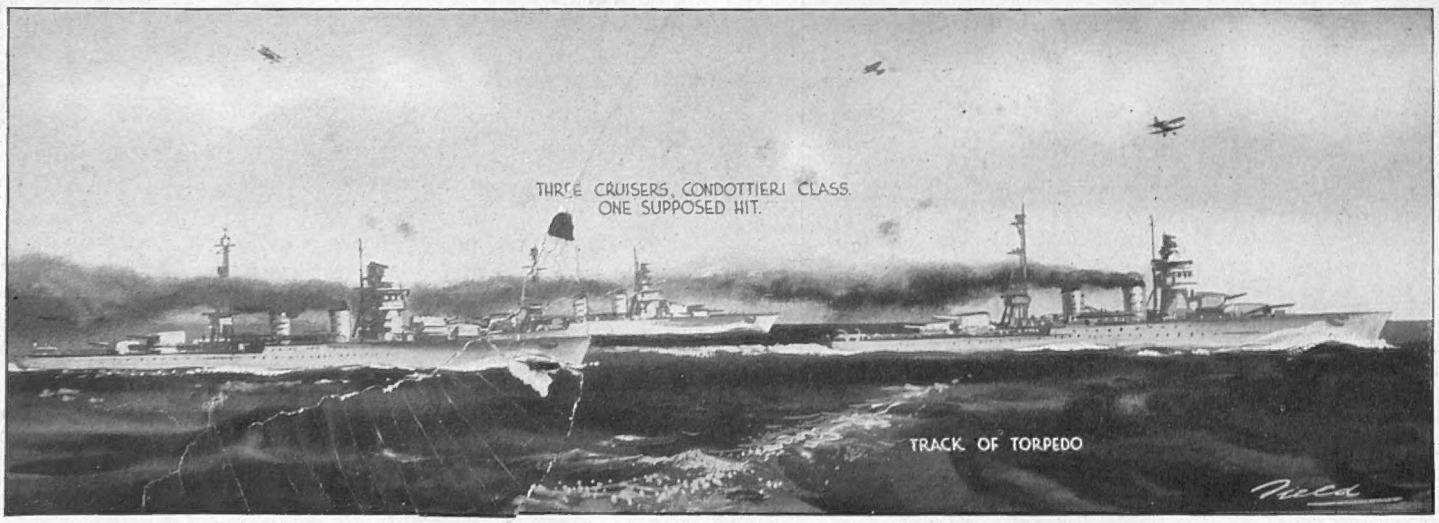
A BATTLESHIP OF THE LITTORIO CLASS *(above)* AND A CRUISER OF THE BOLZANO CLASS TORPEDOED DURING THE ACTION OFF SARDINIA

After the torpedo attack on the Italian Fleet assembled within the moles of Taranto harbour, a certain proportion of the Italian ships left for some unknown destination. They had apparently made off in the direction of Sardinia and its adjacent waters, for on the morning of Wednesday, November 27 (sixteen days after Taranto), an enemy force was sighted to the South of Sardinia at the southern entrance to the Tyrrhenian Sea. The sea action was brief, owing to the acknowledged speed of the Italian Fleet which out-distanced our slower battleships, but fortunately the Fleet Air Arm were able to take up the chase and their planes racing at high speed after the retreating Italian force, succeeded in torpedoing (1) a big battleship of the Littorio class and also a large cruiser of the Bolzano type. This may have been one of the cruisers hit at Taranto. As the Bolzano class is a class of one, it is probably not safe to say more than that a large cruiser was hit



AN ENEMY CRUISER OF THE 8-IN.-GUN TYPE AFIRE AFT AND A DESTROYER OF THE GRECALE TYPE DOWN AT THE STERN

The attack from the air by the Fleet Air Arm, which continued the conflict, was successful to a degree which must be seriously perturbing the enemy. While the vessels were steaming all out for their several destinations a cruiser of the 8-in.-gun class was hit and was afire at the stern, and a destroyer of the Grecale class was down at the stern, was listing, and was seen to stop from time to time—all evidence of serious damage



THREE CRUISERS OF THE CONDOTTIERI CLASS WERE STEAMING RAPIDLY EASTWARD WHEN ONE APPEARED TO BE HIT

These three cruisers were making all speed for the protection of their shore defences in the Mediterranean when the Fleet Air Arm dropped a torpedo in their direction and it is thought that one was hit; the Fleet Air Arm do not claim a certain hit in this case. The Condottieri class are a useful type of light cruiser mounting 6-in. guns. Speed and the smoke screen seem to be an inadequate protection against the Fleet Air Arm

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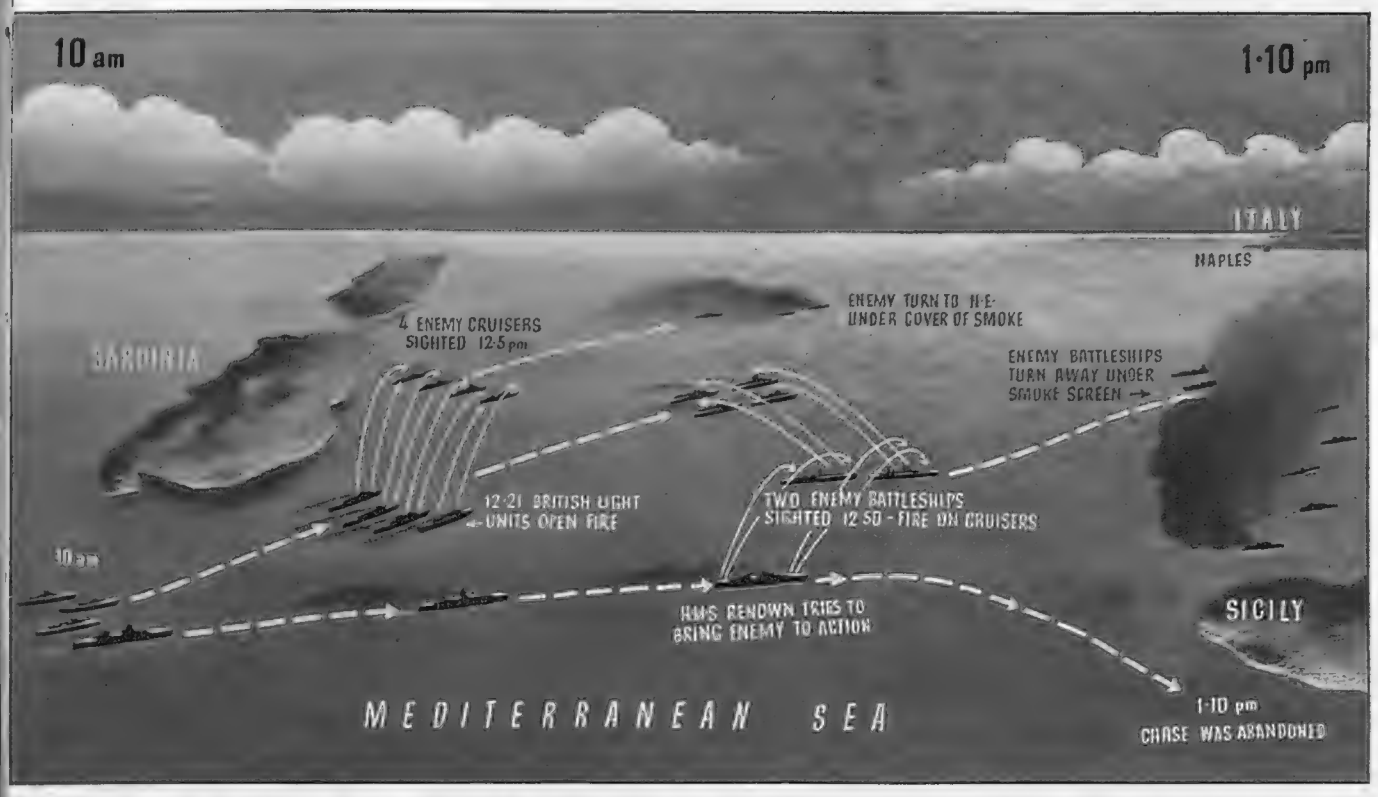


THE NAVAL ACTION OFF SARDINIA

The Italian Fleet Again Hammered in a Running Fight, Wednesday, November 27

HOW THE ACTION DEVELOPED AFTER THE ENEMY'S PRESENCE WAS FIRST SPOTTED BY AEROPLANES OF THE FLEET AIR ARM

The enemy were first spotted by naval reconnaissance aircraft who reported the presence of two battleships and a large number of cruisers and destroyers at sea about 75 miles to the north-eastwards. "Our forces at once increased to full speed and altered course to close with the enemy with the hope of bringing him to action. A few minutes after noon four enemy cruisers were sighted hull down over the horizon. At 12.21 p.m. our advanced light units opened fire. The enemy cruisers replied and almost immediately turned away and retired at high speed under cover of smoke." At 12.50 p.m. two enemy battleships accompanied by cruisers were sighted and the action was continued as shown above

CAPT. C. E. B. SIMEON, R.N.: Captain of H.M.S. Battle-cruiser *Renown* which attempted, with her greater speed, to engage the enemy at closer range

7 OUT OF 6 AND OUT OF ACTION

2 SUNK & 3 OUT OF ACTION OUT OF 22

9 SUNK & 1 OUT OF ACTION OUT OF 61

ED 25 SUNK OUT OF 117

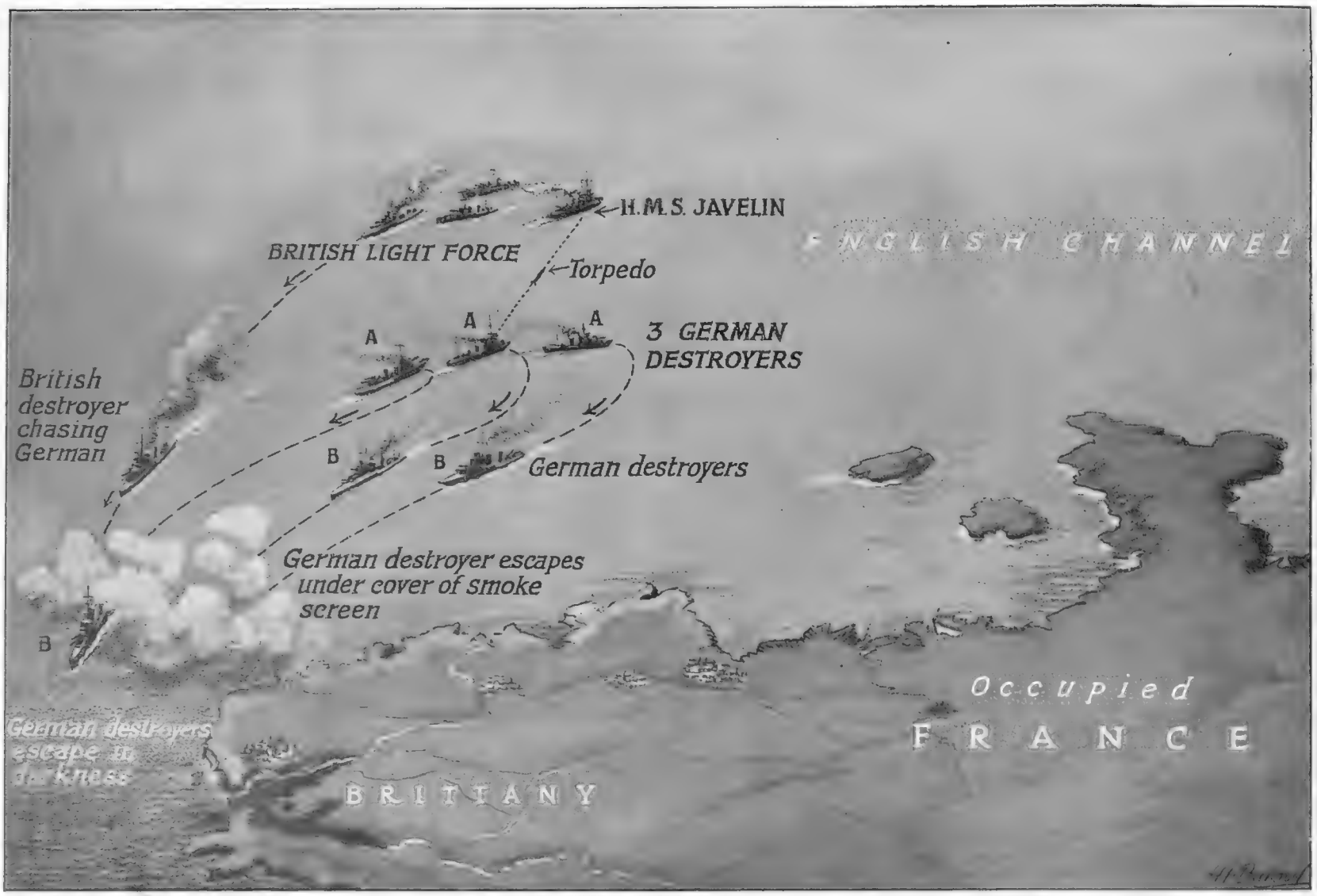
R DAMAGED, OF THE ITALIAN FLEET

ransverse bands indicates the amount of naval tonnage hade indicates the tonnage damaged, and the light grey he remaining undamaged tonnage of the four main classes. ips, none are claimed as lost; some are considered to most certainly out of action for some time to come

Drawn by Montague Dawson

THE GREAT HULL OF THE "ARK ROYAL" EMERGING FROM A SCREEN OF BOMB SPRAY

It must have been a tense moment when the huge aircraft-carrier, enveloped in the spray of thirty bombs hitting the sea, drew out from this undesirable veil and revealed herself quite unharmed by the aerial discharge. "She emerged from the spray," says the official account, "with all guns firing furiously, having sustained neither damage nor casualties." During these operations one Cant Z506 three-engined float plane and one RO43 float plane were shot down." The *Ark Royal's* presence with the Fleet enabled the attack to be pressed home (see also front page)



THE NAVAL ACTION IN THE CHANNEL

When British Light Forces under the Command of Lord Louis Mountbatten Compelled the Enemy to Run

Early in the morning of November 29 the action illustrated in diagrammatic form above took place in the English Channel between British light forces and those of the enemy. Contact was made at 5.40 and fire was immediately opened by both sides. The German force, consisting of at least three destroyers, scattered and withdrew at high speed towards the French coast, firing torpedoes as they went. One of our destroyers, H.M.S. *Javelin*, on board which was Captain Lord Louis Mountbatten, R.N., officer in command of the Flotilla, was hit and damaged by a torpedo early in the engagement. Another destroyer chased one enemy destroyer, which made off to the westward under cover of smoke, but lost touch after half an hour owing to the darkness and the enemy's use of smoke screens. The remaining enemy destroyers were chased to the southward by other British units. These German destroyers also escaped in the darkness and subsequent attempts to regain touch proved fruitless. On her return to port the crippled *Javelin* was heavily attacked by German bombers; R.A.F. fighters, however, beat off all these attacks and *Javelin* was enabled to return in safety

IN SEARCH OF THE ITALIAN FLEET IN THE MEDITERRANEAN

British destroyers on patrol in the "Italian Lake" carrying out one of their constant sweeps. After the actions at Taranto and off Sardinia, the Mediterranean is less than ever it was the *mare nostrum* of Mussolini!

THE MENACE TO BRITISH SHIPPING

Aircraft versus the Submarine

On left—
A RAIDER CAUGHT UNAWARES: The U-boat has been caught napping by the Short Sunderland flying-boat whilst stalking a British steamer. The Sunderland has come up, keeping in the blind spot of the submarine's periscope. It quickly releases two depth-charges, each of which is capable of destroying a U-boat at such short range. The huge flying-boat is capable of maintaining quite a long patrol at its cruising speed of 180 m.p.h. It normally carries a crew of seven

AEROPLANES of the Coastal Command of the Royal Air Force and of the Fleet Air Arm have flown thousands of hours and millions of miles on coastal reconnaissance around our shores in all weathers during the fifteen months of war. During that time they have shot down or sunk millions of pounds worth of German commerce raiders, both oversea and undersea craft, and in doing so have saved millions of pounds worth of British ships and goods.

Best known of all the aeroplanes engaged in this work is the big Short Sunderland four-motor flying-boat which, fully loaded, weighs some 25 tons. This aeroplane has borne the brunt of aerial convoy protection over the Atlantic. Its great range enables it to take off at dawn and remain in the air throughout the day, only returning to its base at dusk.

In spite of their long hours on duty the crew of a Sunderland are able to enjoy some of the amenities of civilisation which they could not do in a smaller machine. For instance, hot meals are served on board from the galley—a service which shipwrecked sailors picked up from the water have had cause to bless more than once.

In spite of the great weight of petrol which it carries, the Sunderland has carrying capacity left over for a useful load of bombs. Those carried are both of the normal type and of a special anti-submarine variety on the same principle as the depth-charge used from ships.

When on its beat, a Sunderland circles round its convoy—a flock of oddly assorted ships—and periodically flies on ahead to spot for any suspicious-looking signs. In clear weather a submarine may be seen below the surface from the air, in rough seas the motion of the waves successfully hides it. Nevertheless the trail of air and oil bubbles left by a submarine often gives it away. Once spotted, a submarine stands little chance against attack from the air. A stick of bombs is dropped diagonally across its course, timed to explode at varying depths. One of them is almost certain either to score a direct hit or so seriously damage the U-boat that it founders or comes to the surface and surrenders.

The Sunderland is not the only machine of the Coastal Command engaged on this work. Another of the better-known types is the Lockheed Hudson two-motor landplane reconnaissance bomber, one of the first types selected by the R.A.F. for purchase from the United States.

The Hudson has done most of its work over the North Sea and off Norway. Ceaseless patrols are maintained in daylight over the whole area.

As the Hudson was developed from a civil air liner—the Lockheed 14—it too is roomy and comfortable for the crew, a fact which is appreciated on these long jobs. The extraordinary reliability of the Wright Cyclone engines is obvious when one remembers that 95 per cent. of the flying time of the Hudson landplanes is spent over water, often out of sight of land, and that one squadron recently completed more than 1,000,000 miles of flying in something like 7,500 hours.

One of the newest British aeroplanes used on Coastal Command work is the Bristol Beaufort, another two-motor landplane. The Beaufort is not only a general reconnaissance type but is equipped for torpedo carrying as well. Beauforts attacked the *Scharnhorst* after it had sunk the aircraft-carrier *Glorious*. In a very gallant attack the enemy battleship was seriously damaged despite fighter escorts.

That action showed not only the striking power but also the power of defence of the Beaufort which mounts a power-operated gun turret aft of the wings. It has also a useful turn of speed of more than 300 m.p.h. thanks to its Bristol Taurus sleeve-valve motors.

The Avro Anson, in contrast to the Beaufort, is an old stager which has done and is still doing fine work. Despite its low power and comparatively slow speed, Ansons have on more than one occasion shot down Messerschmitts. Flying from Northern Ireland, they have played their part in escorting convoys safely into harbour. The Fleet Air Arm, although its more spectacular successes have been gained in the Mediterranean, has been quietly and efficiently getting on with important jobs flying from England. For instance, Fairey Swordfish—the same type of machine which severely damaged the Italian warships at Taranto in torpedo attacks—have done magnificent work in dropping mines along the German coast. Recently the new Fairey Albacore torpedo-droppers and dive-bombers have been used in attacks on the invasion ports. So while the Bomber Command carries the war into Germany, the Coastal Command and the Fleet Air Arm keep clear the seas round our coasts and embarrass the seaports of the enemy.

COUNTERING THE U-BOAT MENACE BY MINE-DROPPING FROM AN AEROPLANE

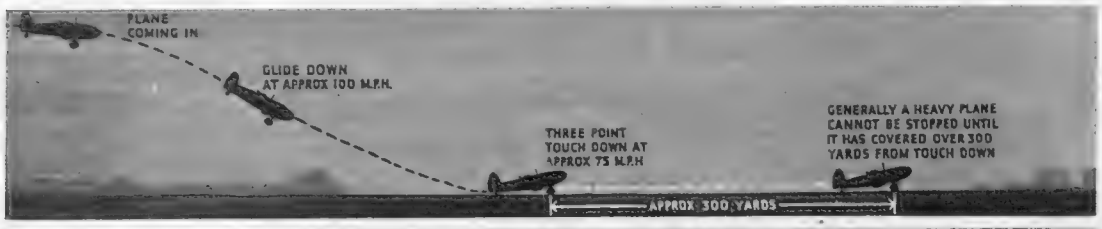
German submarines have recently started an intensified campaign against British shipping. Creeping out of their newly acquired bases on the French coast, they have caused a large number of ships to be sunk. Without the use of the Irish bases, Britain has a difficult task in countering these actions, but many methods are now being employed. This illustration shows a Hampden bomber, converted for mine-laying, dropping mines at the entrances of a U-boat base. Very little is heard of these exploits but they require great courage and very accurate navigation, as the mines have to be laid within a yard or so of a pre-arranged spot and the work has to be carried out at night. Obviously the Germans will not admit the loss of submarines by this method, but there is no doubt of its effectiveness. The range of a Hampden, with full load, is 1,250 miles; it normally carries a crew of four

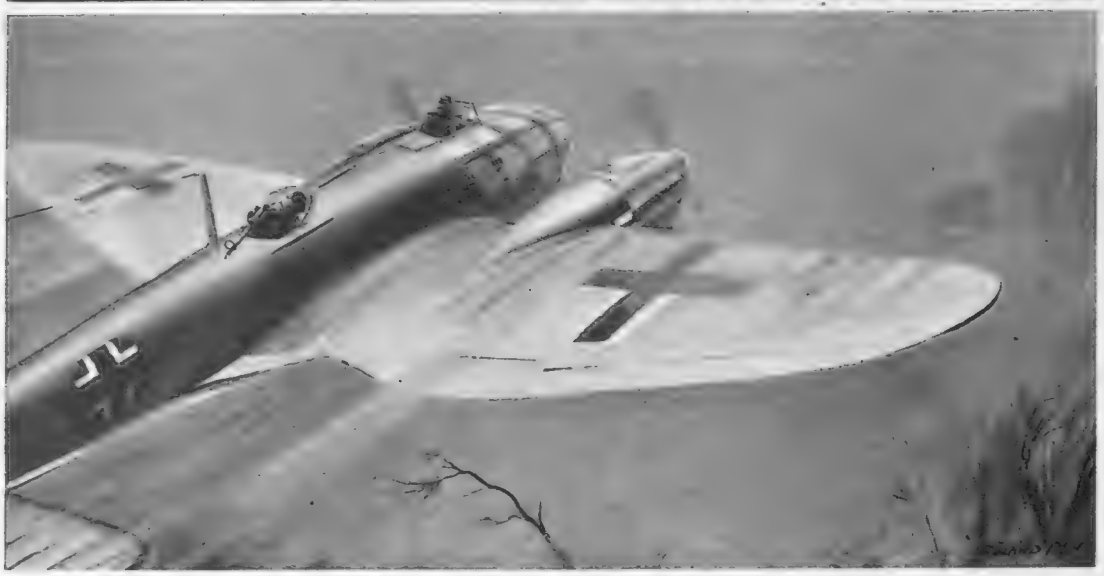
The WORST ENEMY of SEAMAN and AIRMAN

Fog at Sea and in the Air: A Problem Which the Coming Weeks in Britain Will Greatly Accentuate

WINTER fog may be a great comfort to the defence forces on land, for it undoubtedly greatly hampers the operations of raiding aircraft, and the sailing of the invasion flotilla in fog is almost unthinkable. It is, unfortunately, the sailor's worst enemy either in peace or war, all through the range from "mousy" or "woozy" to "thick as the inside of Jonah's whale." The sailor, like the airman, wants it as clear as possible with the greatest visibility, and fog of any sort means a physical and mental strain which is only realised when the watch is over and the officer seeks his berth. For the careful commanding officer, whether he is the four-striper in a giant battleship or a junior lieutenant in his first command, there is no end to his watch during fog and he puts in almost incredible hours.

(Continued below on right)



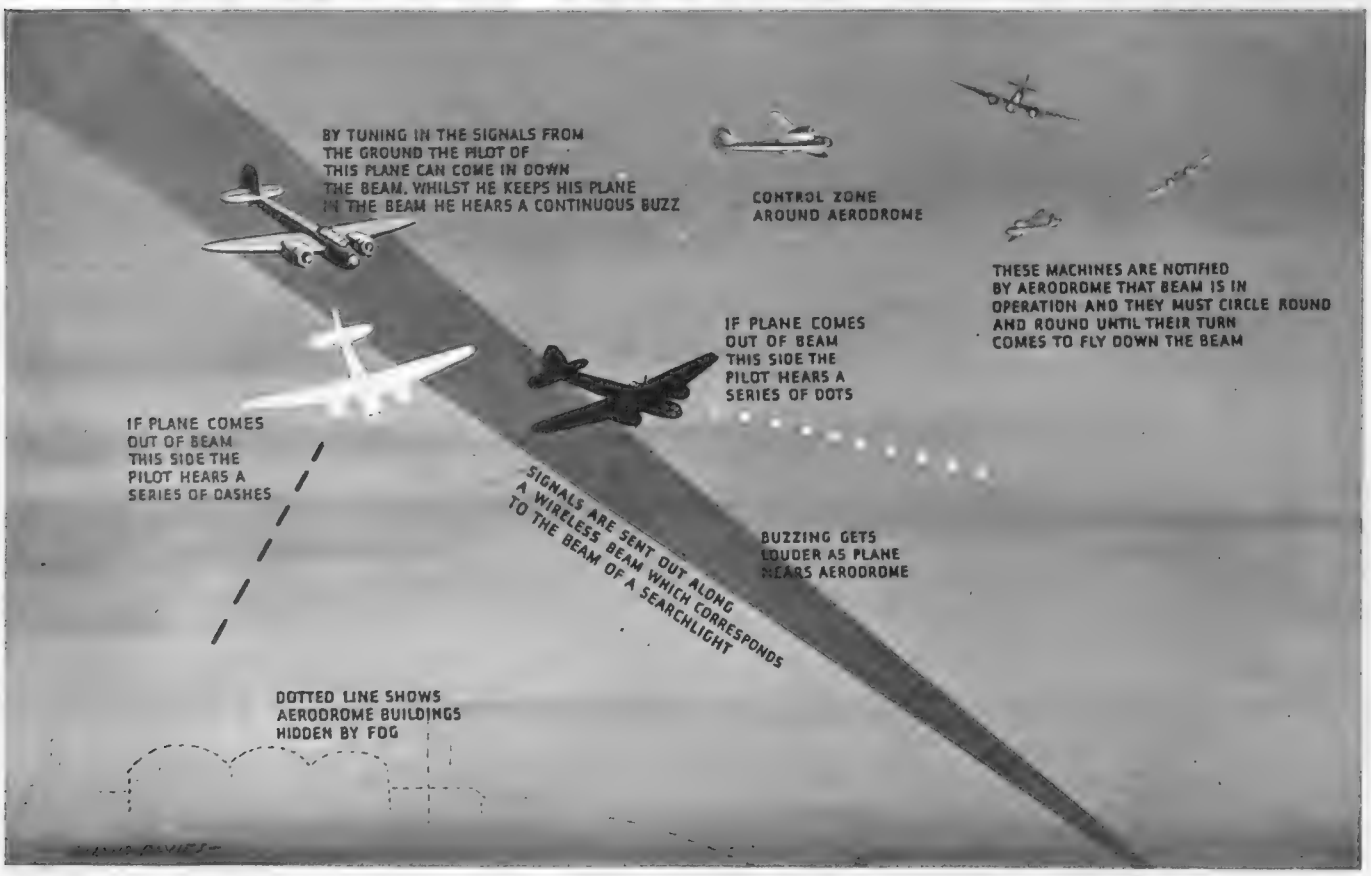


Drawings by Roland Davies

THE PROBLEM OF FLYING A HEAVY BOMBER DURING FOGGY WEATHER

Even with every radio aid known to modern science, bringing a bomber down to land in thick fog must be a terrifying experience. On the German Heinkel bomber the pilot can raise his seat when landing so that he can get his head through a folding hatch in the roof. The above drawing shows the aircraft coming down dangerously low over the hidden tree tops; the pilot is straining every nerve to bring his huge machine through the blanket of fog to a safe, if bumpy, landing. The upper section of the drawing shows the approximate speeds and distances of a plane when landing; always the most critical part of flying—especially with a big bomber—landing can become a grim business in fog. On the glide down to the aerodrome, the speed will be about 100 m.p.h., slowing down to about 75 m.p.h. for the actual touch-down. The big aircraft will roll for at least 300 yards before it can be brought to a stop; if the pilot has "overshot" his landing in the fog he stands a good chance of wrecking his machine. The picture below shows one method of landing an aircraft in fog which the Germans are known to be employing; it depicts the method of the radio beam transmitter. Despite that the actual approach to the aerodrome may be made by this means, however, the final and critical last few moments must still depend on the pilot's own limited vision. When the beam is operating, the pilot can keep to his proper path until actually within a few hundred yards of his touch-down point; the rest depends on himself. This "beam approach," it must be understood, cannot be used to bring in large numbers of aircraft. Only one plane can come in at a time by this method; to have a large number of bombers circling and awaiting their turn to approach means a risk of mid-air collisions or a crash through running out of fuel

Below—**HOW AN AIRCRAFT IS BROUGHT IN TO LAND BY MEANS OF A RADIO BEAM**



THE TRICKS OF FOG

Fog at sea—as on land—is unpre miles and be as thick as night; it it may cover a vast area or just biggest menace—and in war-time good or evil. Mr. Dawson's draw which a fog at sea can play. After

(Continued from above)

In peace-time there are all sorts of international agreements for the prevention of collisions at sea, and most of them pay very particular attention to fog; the signals which are to be sounded at maximum intervals, the precautions with regard to speed, and the handling of the engines when another ship is sighted. That they are all necessary has been shown by a score of disasters, but in war-time it is a matter of the most careful judgment as to which regulations to follow.

Concealment is the great object of every ship at sea, especially merchant ships, when the enemy is launching his attacks at every possible moment. A homeward-bound convoy with valuable food and materials is bound to reduce speed in fog, making it easier for the attacking submarine to get into an advantageous position, and if every ship is bellowing with her foghorn the noise will be sufficient to attract the enemy from a considerable distance.

Drawing by Montague Dawson

AT SEA: A BRITISH DESTROYER EMERGING FROM A DENSE FOG RUNS STRAIGHT INTO A CLEAR PATCH

dictable: the fog belt may extend for may be tenuous and clinging, but patchy; a few miles; in any case it is the seaman's its results are incalculable, either for ing shows only one of the little tricks ploughing at greatly reduced speed through a dense blanket the destroyer, without warning, suddenly runs clear of the darkness and emerges into bright daylight, and in a well-charted shipping channel. During a fog such as this, the destroyer makes no sound—sirens are not used in these weather conditions in the Navy, the vessel feeling her way carefully, with men stationed at look-out points all round her

Submarine attack in clear weather, when there is a chance of spotting the feather of the periscope, is bad enough but if she can creep into position under the cover of fog, and discharge her torpedoes at short range, there is not only the big chance of their having the maximum effect but also the confusion which is liable to sink ships by collision, and this is just as satisfactory to the Germans as their being sunk by torpedo.

On the other hand, there is, of course, the fact that the convoy is very much more difficult to find, especially if the submarine is not directly in its track. Acoustics in thick weather play extraordinary pranks, not only making it very difficult to judge the distance and direction but also by the extraordinary "zones of silence" which have never been explained but which shut out the sound altogether over considerable areas.

A fog signal of the most scientific design, with notes blended to obtain the maximum range, will suddenly become inaudible at an unguessable range, often quite a short one, and then equally suddenly become deafening when the ship sounding it is only a few hundred yards away. The direction from which the signals come is also very puzzling and often enough they appear to be coming from two or three directions at once and cause the navigator to allow for more than one ship. Such freaks make it difficult for the attacker to get her bearings by sound, but they are very worrying to her quarry as well.

White shows up better in fog than any other colour, so that ships keeping station will tow a piece of wood at the correct distance astern, so arranged that it throws up a feather of spray. The look-out on the forecastle head of the ship next astern keeps this just under his own bow and he knows that he is safe from one collision at all events; for the ships steaming abeam special look-outs on the bridge carefully watch their bow waves, but these are minimised with the reduced speed.

Fog also means, of course, very greatly added worry to the ships carrying out lone patrols against the enemy; destroyers, submarines, escort vessels, minesweepers, and the like. They have to use their judgment with regard to reducing speed, bearing in mind that they have a large area to cover and also that fog collision at high speed means disaster in a matter of moments. They have to guess not only the positions of their consorts in the patrol, but also the possibility of merchant ships or fishing vessels being in unexpected positions. All hands have to be ready for instant action.

But even fog sometimes relents and shows itself a friend as well as an enemy. It is often patchy, and there has been more than one occasion on which a destroyer, creeping through the fog in absolute silence, has suddenly run into a clear patch and discovered an enemy submarine on the surface recharging her batteries, and has dealt faithfully with her before she could submerge.

Frank C. Bowen

On right—

FLARES ARE USELESS IN A FOG: If during the course of a flight the fog should thin a little and the pilot threw out flares, he would merely accentuate his blindness. Every tiny globule of fog acts as a mirror and the pilot would be dazzled by the glare, just as a motorist is when he turns on his headlamps on a foggy road

FAIR WEATHER and FOUL in the CHANNEL

A BRITISH DESTROYER, ON HER LAWFUL OCCASIONS, PASSING THE NEEDLES, OFF THE WIGHT, IN FINE WEATHER

By night and by day, the Channel patrols of the British Navy continue, in fair weather or foul. After the amazing weather of the past few months—the finest this country has experienced for fifty years—we are now running into the winter. Sunlit, peaceful days at sea like that depicted above by Mr. Dawson, will soon be only a memory as the winter gales come storming up the Channel. That will be the testing time for the destroyers—but even more so for the enemy submarines infesting these waters: so far, the latter have had the weather in their favour; it remains to be seen how they will fare when gales, as well as destroyers and aircraft, come to harry them

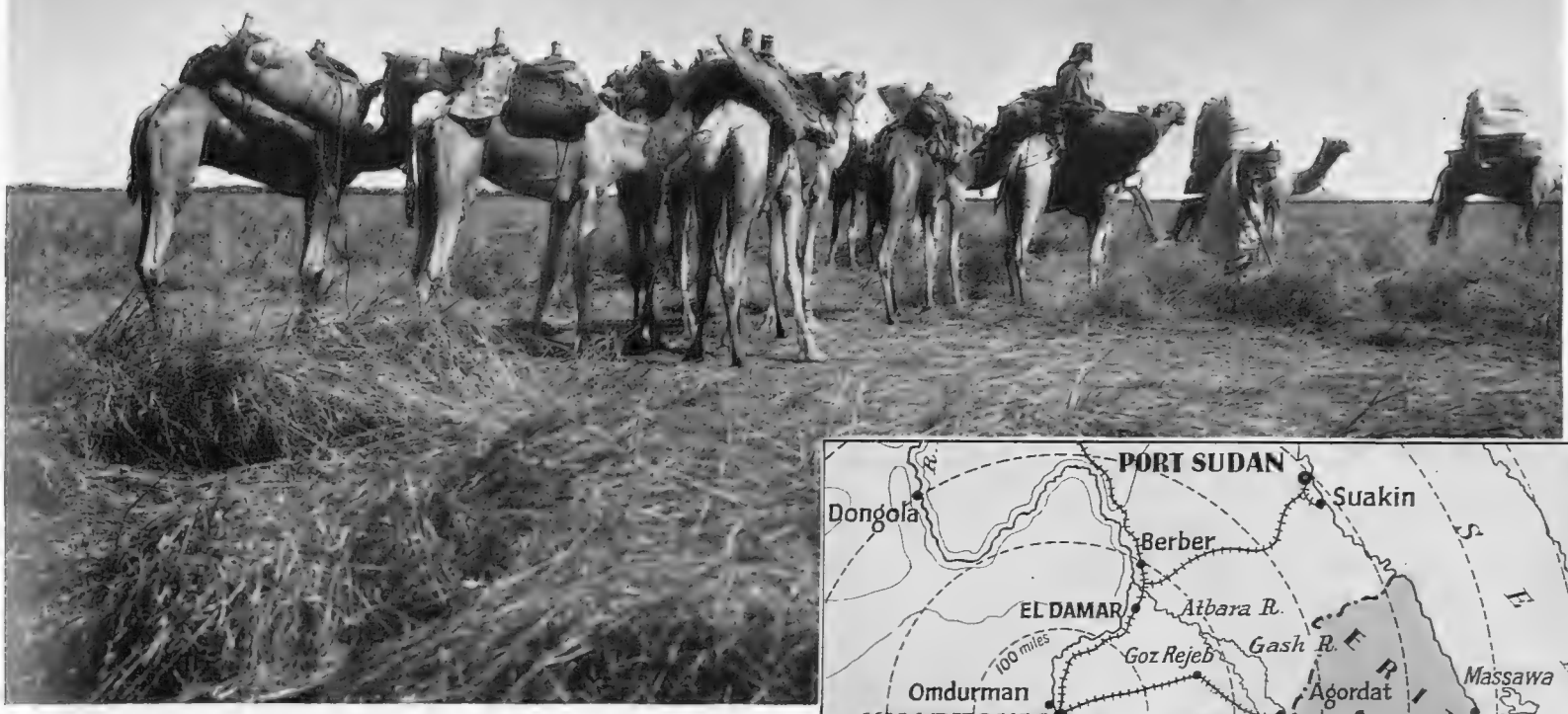
Drawings by Montague Dawson

DIRTY WEATHER AHEAD: A PATROLLING DESTROYER COMING INTO PORT AS THE CHANNEL WEATHER THICKENS

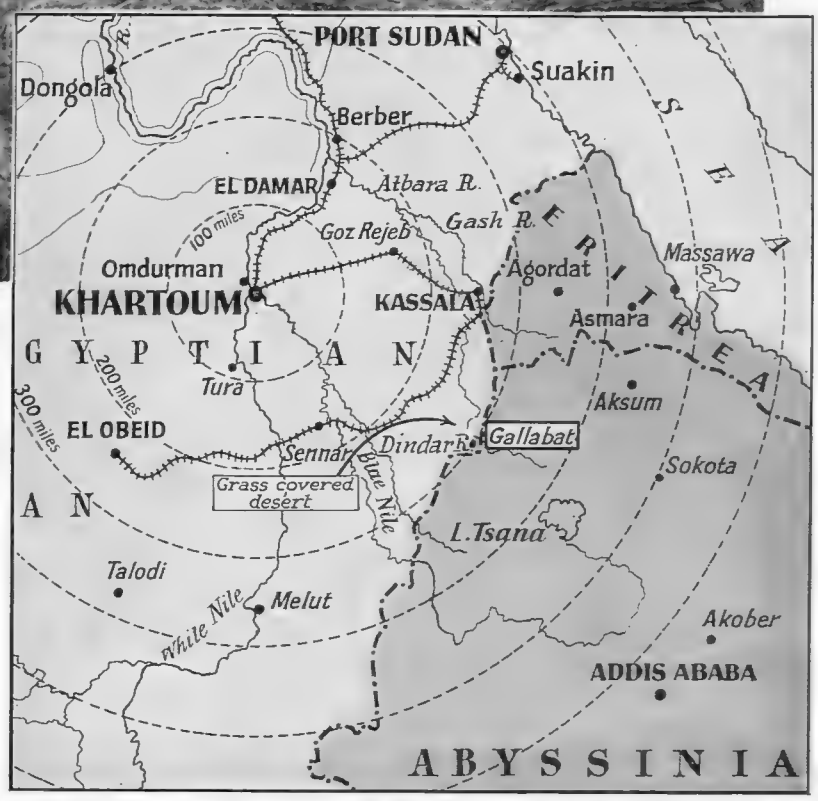
From day to day, almost from hour to hour, the weather in the Channel is unpredictable. Now that reports of weather conditions in this area are again being published, we can see for ourselves how quickly fair can give place to foul. Torrential rain, heavy mist, high winds, wintry gales—all can be experienced during the course of a Channel patrol. The weather can, in fact, quickly turn from friend to enemy during the late autumn and winter; it is this uncertainty with which the Germans—by sea and by air—will soon have to contend. Two of the many moods of the Channel are depicted here by Mr. Dawson

THE CAMPAIGN BY THE ATBARA

THE STRUGGLE FOR GALLABAT AND KASSALA



THE BACKGROUND OF THE FIGHTING ON THE SUDAN SIDE: Great grassy plains extend westwards from the Abyssinian frontier in the Bhutana region. When the rains have fed the soil, nutritious grass springs up and reaches a height of 6 ft. to 8 ft. Later when the dry season comes it wilts, the wind blows it over and the camels further trample it down during their journeyings



WHERE GALLABAT LIES CLOSE TO THE ABYSSINIAN FRONTIER: Kassala province is bordered on its east side by the Abyssinian frontier and is bisected by the Atbara River, which rises near Lake Tsana and flows close to Gallabat, where the local British force has been operating successfully against the Italian forces in this region. On the east are the foothills of Abyssinia; at the back of the position to the west are the wide grassy plains, broken by sudden uprushes of igneous rock which form striking "Jebels"

AFTER being in the hands of the Italians for just four months, Gallabat has now been recaptured by the British forces.

When the Italians captured it on July 3 it was held by a small force of Sudanese troops, too small to keep off the heavy masses brought against them, and so consequently had to retire after giving a very good account of themselves. They did not retire far but remained near enough to harass the Italians on possible occasions.

No sooner were the Italians established strongly in Gallabat than Colonel Castagnola, the commander, found his position was one of great difficulty. Within a few weeks the heavy rainy season set in, turning the rivers into torrents and cutting them off from Gondar, their source of all supplies. But once these rains were over, the war experts assured us, the Italian forces in Gallabat would doubtless advance along the Blue Nile towards Khartoum, in conjunction with a similar force operating from Kassala along the Atbara, and, of course, the long-expected march of Graziani from Libya. It all sounded very threatening and ominous away in the summer, when the capitulation of France had entirely altered the Allied schemes in the Middle East and had left us in a precarious position.

But luckily matters have not so eventuated. The Italians in Gallabat have been constantly worried by the R.A.F. and patrols of the Sudanese have been ever on the watch to catch parties of the Italians by surprise. Late in October efforts were made from Gallabat to reconnoitre further into the Sudan, near the Blue Nile, but these reconnaissance parties were forced to retire rapidly by the Sudanese patrols.

On Wednesday, November 6, the British at last took serious action and advanced on Gallabat with tanks, armoured cars, artillery, and the assistance of the R.A.F. The Italians had obviously thought themselves quite secure from attack and were taken so entirely by surprise that they were forced to retire after an action which had lasted for less than an hour.

The next day, Thursday the 7th, Italian bombers were brought into action, the fort and native settlement suffering a heavy attack. The R.A.F. succeeded in bringing down four Italian planes, but our troops were withdrawn late that evening, probably to avoid undue losses from the air. The Italians did not venture to re-enter the fort until Saturday, the 9th—perhaps fearing a trap. They had scarcely time to unpack before the British attacked again with renewed vigour, driving out the Italians once more, being back in time for breakfast on Sunday, the 10th.

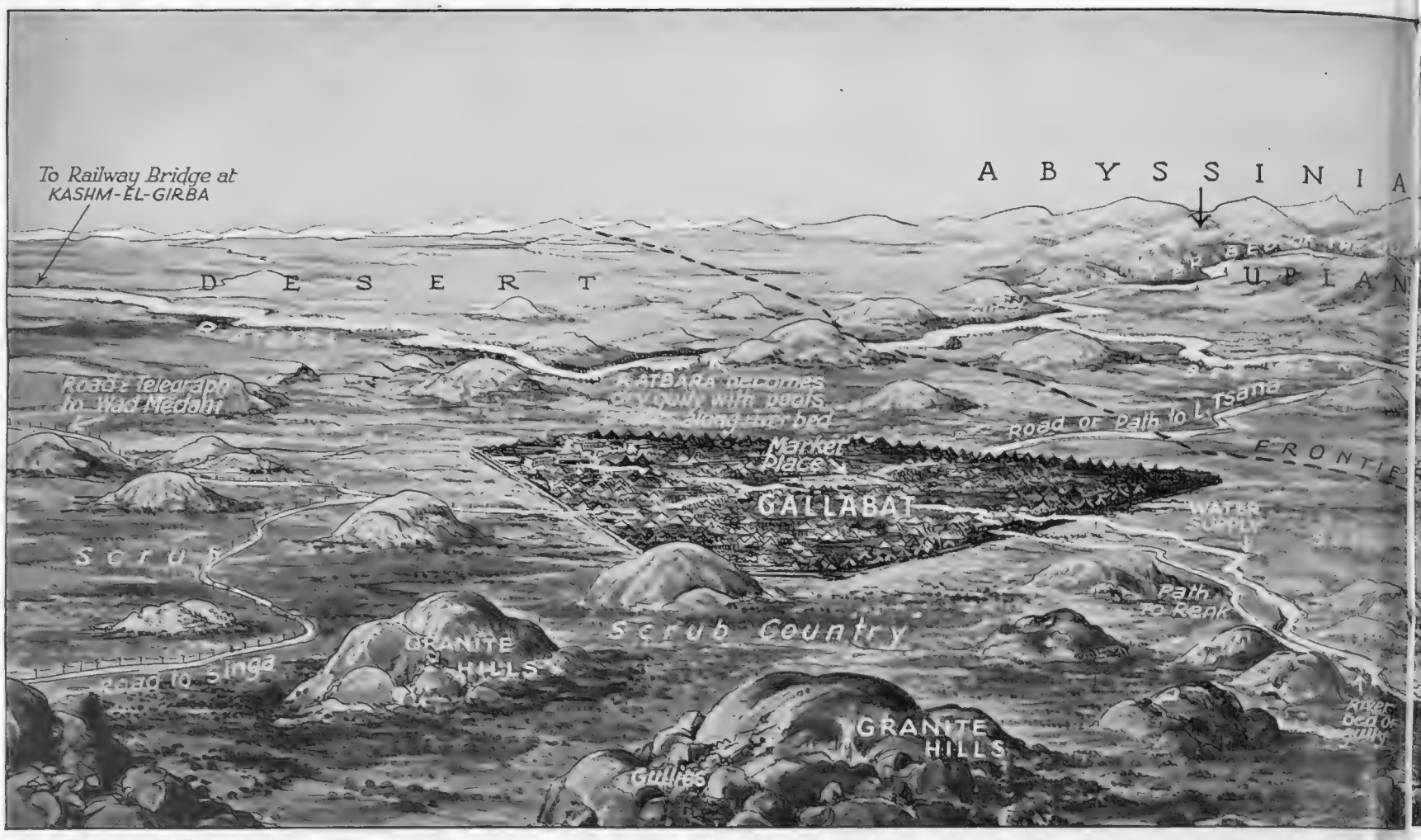
Efforts will no doubt be made to recapture Gallabat, after reinforcements have been collected. Italy has had so many reverses during the month of November: her bombers shot down in England, her crack troops routed in Greece, her battleships and cruisers sunk at Taranto, that she cannot afford another loss, even though it be only a comparatively small outpost frontier town.

Lorries have been seen hurrying up reinforcements from Gondar, and have been bombed by the Rhodesian Air Force. British guns have been shelling the Abyssinian village of Metemma, just across the frontier from Gallabat—so close that a barbed-wire fence had been erected by the Italians to bring them under its protection.

It is said that 250 air attacks have been made on Abyssinia by the Royal Air Force, the Rhodesian Air Force and the South African Air Force since Mussolini was rash enough to declare war. Aerodromes have been constantly attacked, nearly 200 planes destroyed and the supply of petrol, which cannot be replenished, seriously diminished.

WHERE THE SUDAN RAILWAY CROSSES THE ATBARA: At Kashm-el-Girba the river, which is here very wide, is crossed by a long box-girder bridge on stone piers. In the view above, a giant tamarisk whose roots probably reach right down to the water, rises by the side of this link between the Red Sea ports and Khartoum

WHERE LEOPARDS, BABOONS, HYENAS, AND JACKALS HIDE: These hills break off by denudation into large boulders, which produce a scree on a huge scale. Among the hollows thus formed, the animals noted above hide in company with numerous snakes, and water pools collect in the hidden hollows



THE BIG NATIVE SETTLEMENT AT GALLABAT, WHERE THE ITALIANS ARE BEING HELD BACK BY THE LOCAL BRITISH FORCE

Gallabat is not merely a little building with the British flag upon its roof; there is a large native settlement of rush-built huts, round-shaped, like the ones shown in the view on the opposite page. In the centre is a market square and round this have been built a few huts of a somewhat larger type with brick columns. But no buildings of any size rise above the maze of hut roofs. Through the town runs a river gully connecting with a tributary of the Atbara. Close at hand are a number of igneous rock masses rising from out of the general flatness of the plains. This town has been bombed by the Italian aircraft coming from Gondar

GALLABAT has always been one of the most important frontier posts on the Sudan–Abyssinian border through which considerable quantities of coffee found their way before the Italian occupation of Ethiopia.

Gallabat can claim no aesthetical interest, but like Gedaref, another important station farther north, it is little more than a collection of native beehive thatched huts, with a central market place about which is found a number of whitewashed mud-brick warehouses used for storing grain, coffee and cotton, and shops where a miscellany of European soft and hardware goods are sold. Quarters for the garrison and the offices and bungalows of the Administration are about the only signs of European association. The town is not far distant from the source of the Blue Nile and Lake Tsana, the control of which the British have long sought for the regulation of the flood waters to Egypt.

Gallabat lies on the slopes of a watercourse a few miles from the upper reaches of the Atbara River, the latter being an important tributary of the Nile, which it joins close to Atbara, the headquarters of the Sudan railway administration. At this point it is an imposing river with broad flood channel crossed by a long girder bridge; during up-country rains, it contributes as much as 3,000 cubic metres a second out of about 15,000 of discoloured silt-laden water which reaches Egypt. Except where the river contracts in width between rocky banks, its bed is a broad strip of sand and gravel with sloping banks with one or more small flows which may persist the whole year. Great herds of sheep, camels, and cattle which graze in the vicinity are driven for watering morning and evening. During the summer rains the Atbara, which is again bridged at Kashm-el-Girba, becomes a raging torrent, across which a passage is barely possible.

Although much of the country in this part of the Sudan is suitable for the growth of crops, it is only within about 20 miles of the river that cultivation can be practised, due to the scarcity of domestic water. On suitable soil the annual rainfall of around 30 ins. is sufficient to nourish to maturity healthy crops of millet and maize, but the people with their animals are compelled to retreat to water long before any planted crops could ripen. Vast plains of black fertile cotton soil support a rank growth of nutritious coarse herbage often attaining a height of 8 ft. to 10 ft. after the rains. Equally rank crops of cereals could be grown if water permitted the settlement of cultivators, for due to the high porosity of the cotton soil a whole season's rainfall of 30 ins. is comfortably absorbed by a few feet of cotton soil, so that there is no surface run-off and some 3,000 tons of water per acre are thus annually absorbed and either imbibed by vegetation or dissipated by atmospheric evaporation and transpiration or fixation of plants. Large herds of animals graze and thrive on this growth during the rains or at all times if within range of perennial supplies of water.

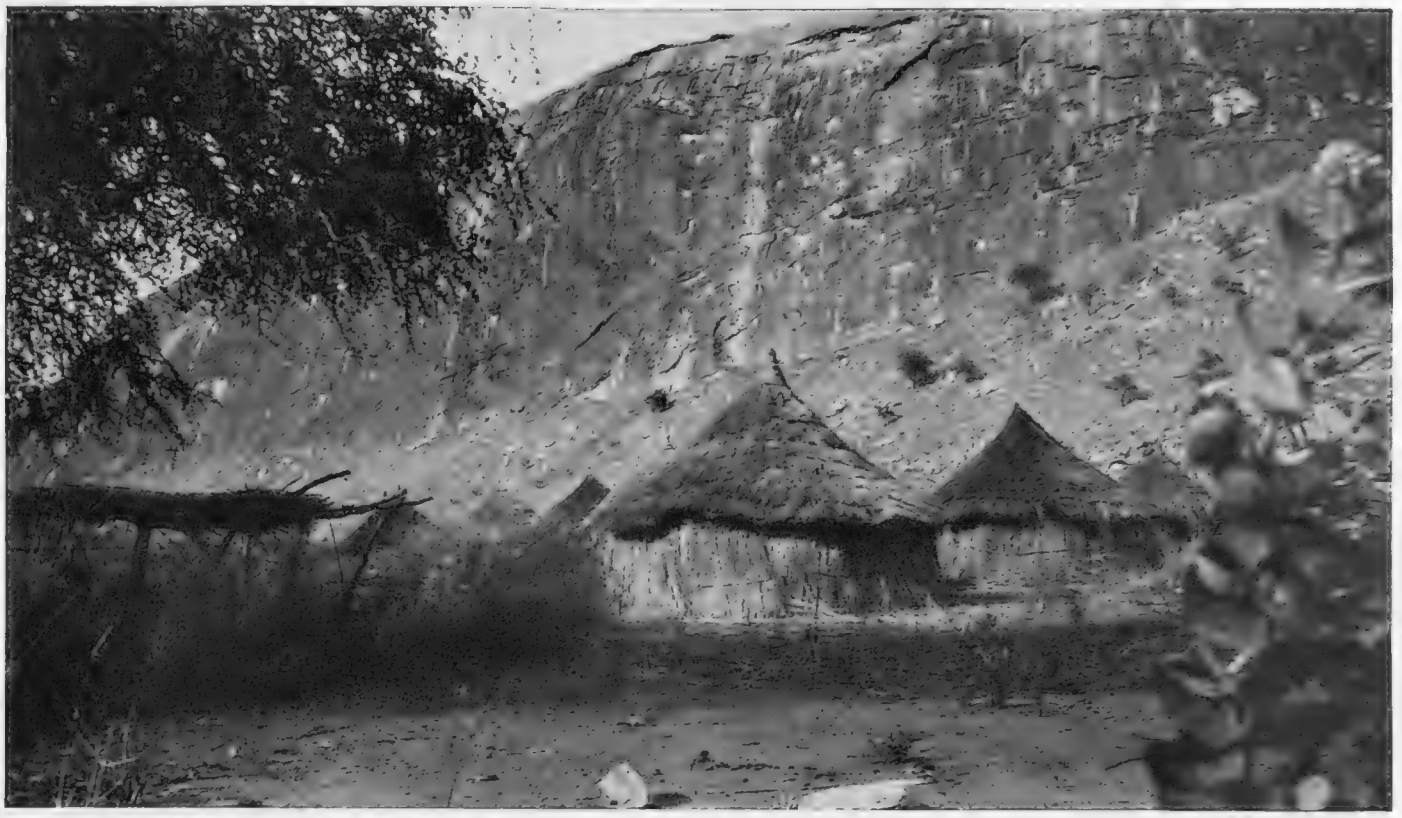
In an attempt to alleviate the situation by encouraging more prolonged occupation of these prairies, open tanks have been excavated in the thick cotton soil on the edge of some of the rocky eminences to conserve part of the rainy season run-off. Suitably designed reservoirs of 1,000,000 gallons capacity have been excavated in cotton soil, and these have preserved sweet water over a dry season. So impermeable is cotton soil when saturated that losses were virtually confined to evaporation amounting to half an inch a day on an exposed surface.

The country bordering Abyssinia from near Kassala southwards to Gallabat presents strangely different physiographical features due to the varied geological formations and variable climatic conditions. The

A POOL IN THE COURSE OF THE ATBARA RIVER NEAR KASHM-EL-GIRBA, WHERE THE SUDAN RAILWAY CROSSES THE RIVER

This is one of the more or less permanent pools of water which can be found along the Atbara's course even during the height of the dry season. The pool is absolutely alive with fish—a trout fisher can spend some wonderful hours here, for the fish rush at whatever is offered them. The river at this spot is quite wide and its banks are lined with thick thorn and other types of tree. The presence of so much water greatly enhances the civil and military importance of the Gallabat area

FIGHTING by the ATBARA: The Cotton Soil and Grass Plain Country in which the Action is Taking Place



ROCK SCENERY OF THE GALLABAT COUNTRY—A TYPICAL IGNEOUS "JEBEL" WITH NATIVE HUTS AT ITS FOOT: A native hamlet is nestling under the shadow of some trees at the foot of a very massive type of igneous uprush which has broken through the level of the grass plains. This one rises up like a gigantic whale, others are smaller and of a more rounded type. All the huts are exactly alike—rush-sided and capped with a conical roof

DOM PALMS LINE THE BANKS OF THE ATBARA IN CERTAIN DISTRICTS: A little pathway leads down to the river bank through this useful type of palm: the latter, it should be observed, never rises to the graceful heights of the North African date palm. Through the opening one can glimpse the river; several crocodiles were basking in the sun when the picture was taken

whole region is covered with metamorphic, igneous, or volcanic rocks, some of which, due to hardness, have withstood denudation processes sufficiently to form peaks and ridges standing up boldly above the surrounding land. The railway running south-east between Kassala and Sennar swings well away from the foothill country and crosses four rivers, the Atbara, Rahad, Dinder and Blue Nile, before it connects with the line to Khartoum via the Gesireh, now irrigated by water held up by the Markwa dam on the Blue Nile.

The construction of this railway was a noteworthy engineering feat, for work had to be restricted to the dry season and the cool weather. Following elaborate preparations and detailed organisation the previously surveyed line was rushed through at the rate of a mile a day with the help of several thousand Egyptian labourers

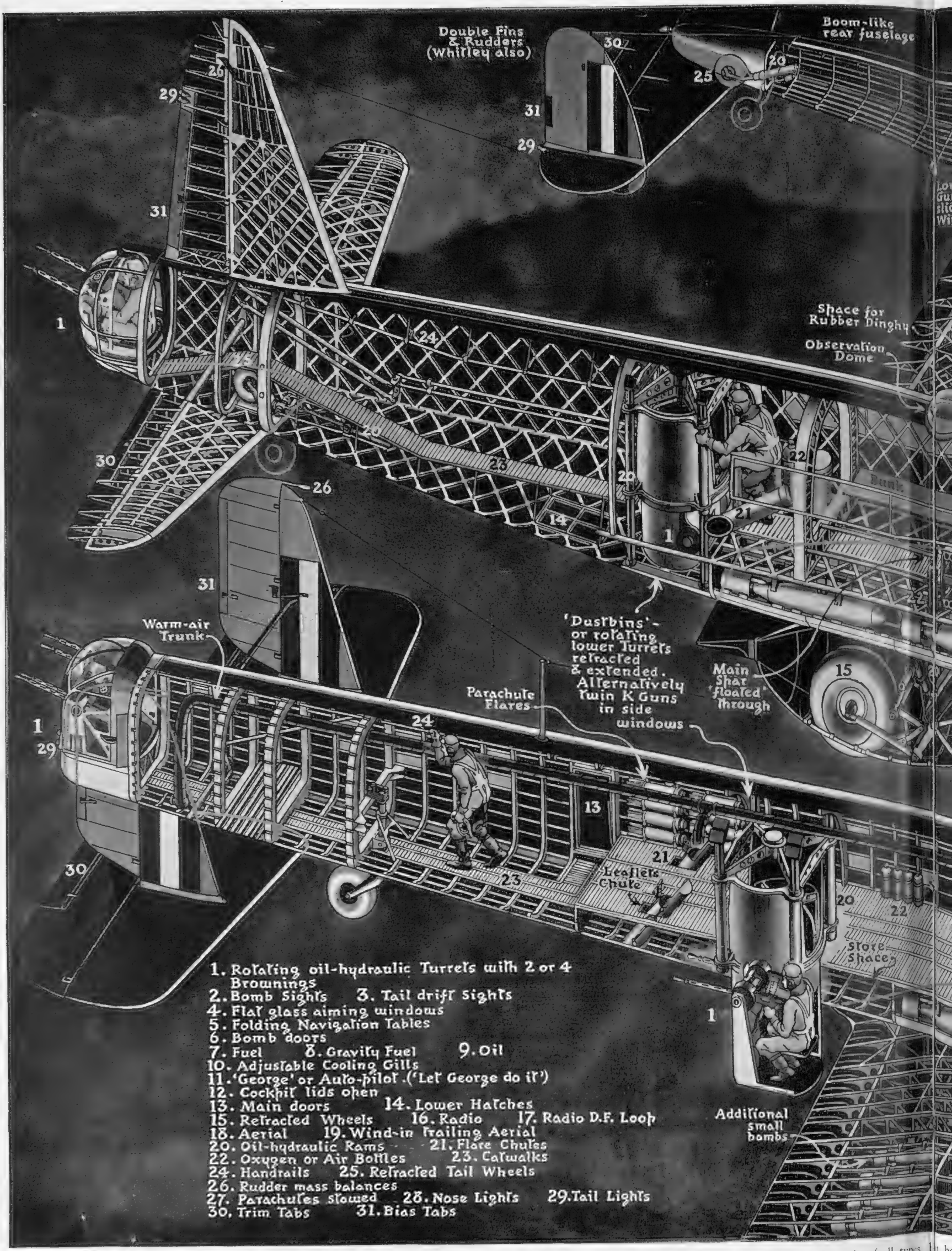
The region known as the Bhutana, between the Atbara and the Rahad, consists of broad, slightly undulating plains broken by occasional massifs of granite, quartzite or gneiss, which often weather into fantastic shapes. The granitic knolls are the most striking as the rock weathers readily along rectangular joint cracks which eventually become detached and roll down the sides to pile up in numbers about the base like gigantic rubble heaps. Amidst these collections of boulders wild animals find a safe hiding place as well as a comfortable retreat, especially as water often collects in crannies and persists throughout the dry season. Leopards, baboons, hyenas, and jackals, all have their lairs on these hillsides, where also lions may occasionally make a home.

Along the flood plains of the rivers there is usually a belt of forested country where monkeys are numerous and stray elephants may roam. In some places the rivers are fringed with closely packed dom palms (the fruit of which is the vegetable ivory used for button manufacture), but when confined within high banks or cliffs the savannah type of country usually skirts the rivers. When the soil is thin and poor and devoid of humus, forests of thorny acacias may appear, but other parts are overgrown with a light covering of short, delicate-stemmed grass which wilts to a golden hue after the rains, producing a most charming sheen when stirred by a gentle wind in sunshine. Near Kashm-el-Girba delightful park-like scenery exists, due to the prevalence of stray thorns amidst the short yellow grass and the frolics of graceful gazelle.

A. Beeby Thompson

DOMESTIC WATER SUPPLY PROVIDED BY THE LOCAL BRITISH AUTHORITIES FOR THE USE OF GALLABAT INHABITANTS

The local water supply has been vastly improved by the provision of cisterns cut in the curious cotton soil and connected with runways to sources of rain water supply. When the rain descends and collects in the neighbourhood of the rocky hills, it flows through a certain number of channels into the basin. The soil when moist makes its own impervious layer and the water lasts through the year. *On the left*—Camels are being brought to the water. *On the right* can be seen one of the made-up entries

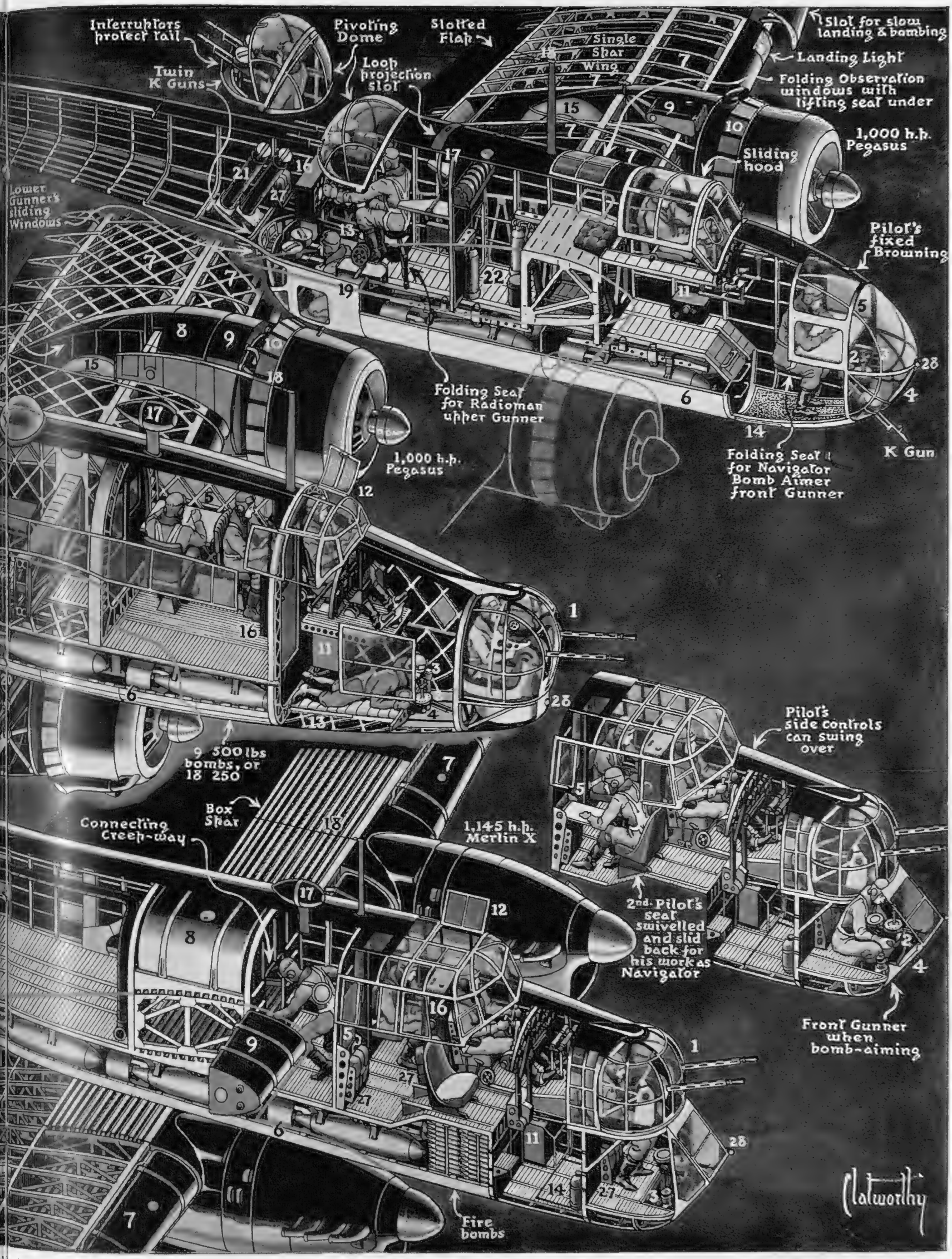


BRITAIN'S THREE PRINCIPAL BOMBING AIRCRAFT

The HAMPDEN, WELLINGTON and WHITLEY of the BOMBER COMMAND, R.A.F.—which are now nightly carrying out Raids into Germany and German-occupied Territory

—Drawing by S. W. Clatworthy (Artist's Copyright in U.S.A.)

Britain is very strong in bombing aircraft of all types, but her principal aircraft still remain the Hampden, Wellington and Whitley with which we entered the war. A bomber aeroplane is among the most highly specialised products of this highly specialised age. In the cut-away sectional drawing above, the Hampden medium bomber is shown in the foreground, the Wellington in the centre; and the Whitley below: they are drawn to a uniform scale, and are shown in their latest guise with such additions as have been found necessary in the light of actual war experience. The Hampden is a medium bomber of high performance, with qualities specially suited to such precision jobs as the classic [illegible]



Canal feats and, latterly, the raid on Munich, for which its narrow and deep bomb compartment was well adapted. It has a cruising speed of over 200 m.p.h., a large bomb capacity and a long range. Affectionately known as "the Tadpole," for obvious reasons, the Hampden is popular with pilots, and a companionable machine—with each member of the crew always in view of some other. The Wellington, in the centre of the picture, is a heavy bomber built on the now famous basket-like "Geodetic" principle, which avoids main structural components as could, when smashed, cripple the whole aircraft. This beautiful machine is the scourge of Berlin. Like the Whitley it has a lonely position for the tail gunner at the far end, reached by an internal "catwalk." Below the Wellington is the even bigger Whitley, robust and roomy on trips which demand a long range and heavy bomb load. This is the type which has been carrying out the raids on Italy from England. Except for the fabric covering of the Wellington, these planes are of all-metal construction: all sometimes carry additional bombs under the wings. The respective spans are 69 ft. 2 ins., 86 ft. and 84 ft.; the lengths are 53 ft. 7 ins. 61 ft. 3 ins., and 70 ft. 6 ins. The present enhanced performance figures may not be given, but it may be stated that the armament possessed by all three now makes anything the enemy possesses appear farcical

IN THE HEART OF THE BALKANS

Will Bulgaria Once Again Become the "Cockpit of Europe"?

EVER since King Boris paid his surprise visit to Hitler at Berchtesgaden on November 19—a surprise to everyone in Bulgaria except a small group—the great question has been, What did he arrange with the Führer? Is Bulgaria to follow in the footsteps of Hungary and Rumania, becoming attached in a subordinate position to the Three Power Pact, or did King Boris reassert his country's desire to remain at peace?

Reports from Bulgaria vary from day to day, and it is difficult to get any clear idea of what is the general policy till one looks back on the past four months when a clearer picture evolves. Then Germany appears as the mainspring of all Bulgaria's actions, the King and Government bowing to the wishes of the Reich, though at moments they have shown a little personal initiative. Hitler's policy in the Balkans can be seen to have changed entirely since that glorious month of July when he stood as overlord of Denmark, Norway, Holland, Belgium, and France.

During the late summer months the attitude of Berlin to Moscow was strangely different to the earlier part of the year. When Hitler found himself military master of Europe, he could disregard the U.S.S.R. and proceeded to carry out his plans without informing his Russian comrade, who found it necessary to remind him, when the question of the Danube Commission was being arranged, that Russia was now a Danubian Power, and had a right to be consulted.

But as July, August and September passed away, and the invasion of Britain still halted, the attitude of the Führer to the Balkans showed a complete change of policy. The boasted *Luftwaffe* had made its assault upon Britain, but the dive-bombers had failed to pulverise the seaports, or to reduce London to impotence, and without that preliminary preparation, the troop-laden barges could not creep out from the harbours. By the end of September, Hitler was thinking of the possibility of striking at Britain from a different angle—through the Balkans and across the Straits, while his ally, Italy, pushed across the desert to Suez.

For this purpose the Balkan peace must be disturbed—and pressure, instead of flattery and good offices, put upon Bulgaria to join in the New Europe, and to submit to the Nazi orders. No wonder it has been difficult for Bulgaria to remain strictly neutral. Bulgaria, however, showed one act of independence. By direct negotiations with Rumania, the Dobrudja has been returned right up to the old frontiers of 1913, the year when Rumania seized it by a sheer act of aggression. The reoccupation took place on September 18 amid great rejoicings, unmarred by any disturbance with the retiring Rumanian Army.

Unfortunately all was not at peace within Bulgaria itself. The country is divided into pro-German and pro-Russian sections. The Government and Army are greatly impressed with German efficiency, but the bulk of the population are Russian in sympathy, remembering that it was Czarist Russia who obtained their freedom from Turkish rule. King Boris is accused by some as being pro-British, whereas it would seem his one object is to keep his country out of war, for which he knows she is not prepared. If Moscow showed her hand at all, gave any indication of support, the Russian sympathisers would have greater importance. As it is, the Germans seem to have gained a grip of the country difficult for a weak power to throw off.

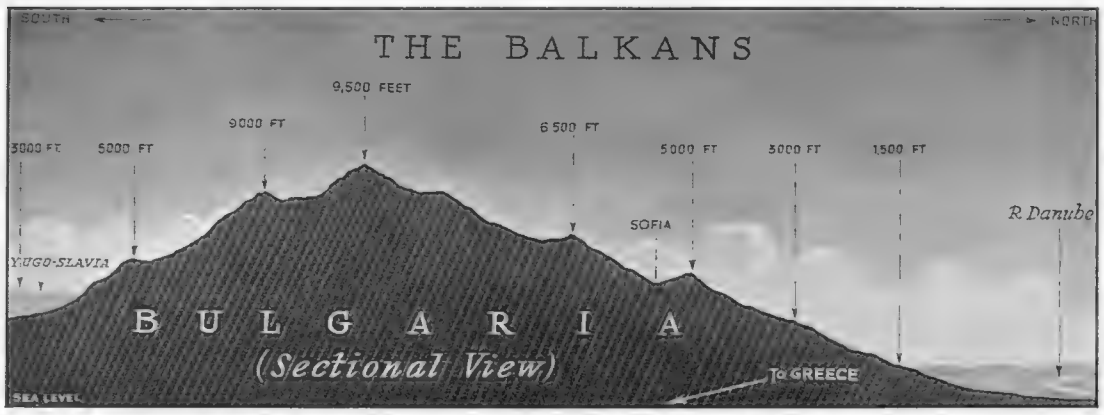
There are the usual tourists, penetrating everywhere; newspapers are controlled by the simple expedient of offering very well paid advertisements to submissive editors and withdrawing them from those who show any independence. The police appear to be entirely pro-German, and though there are only some 5,000 German troops said to be at present in the country, there are reports of aircraft listening stations being set up, and submarines having arrived, via the Danube.

The Communist Party, naturally pro-Russian, protests strongly against the Government's leaning to the Axis, and clamours for the continuance of the pact of peace with Yugoslavia. The Macedonian Revolutionary Party was banned after the criminal attempt at revolt in 1935, but there still remains a party who clamour for an independent Macedonian State, with Salonika as its capital. Both Italy and Germany are supporting the Macedonians, being willing to stir up trouble. The German Minister for Education, Herr Rust, on a recent visit to Sofia to open a German Institute, spoke highly of the Macedonians as the true source of Bulgarianism. The leader of the Revolutionaries was reported to be in Albania, ready, presumably, to enter into Macedonia, with the victorious entry of the Italians! All talk of a Macedonian State naturally disturbs the Balkans, as it would be carved out of Yugoslavia, Bulgaria and Greece.

There has been a renewal in the Press of the Bulgarian claim to an outlet on the Aegean, obviously pressed by Germany who is showing much sympathy. Turkey and Greece are at one in their refusal to consider this claim, though Greece has offered a privileged position to Bulgaria on the Aegean, an offer which has been disdained.

Russia must be watching all these happenings with considerable anxiety. It is true that she has again been wooed by her somewhat uncertain ally who now finds it necessary to reassert the warmth of her friendship. M. Molotov has been received in Berlin with enthusiastic welcome, the streets beflagged with the Russian Sickle, at one time so much abhorred. But Russia still moves warily, afraid to arouse the power of the German Army.

At the time of writing, the position in Bulgaria shows a distinct leaning towards Russia and a movement away from the Axis Powers. The two Bulgarian emissaries, who were said by the German and Italian broadcasting stations to be about to visit Berlin, had not set out on that doubtful journey, and it was confidently stated in diplomatic circles that Bulgaria had refused to sign any pact with Germany.



THE MOUNTAIN RANGE WHICH HAS GIVEN ITS NAME TO A WHOLE PENINSULA

Running right athwart the country of Bulgaria are the Balkan Mountains, which in places rise to nearly 10,000 ft. They have given their name to the whole Balkan Peninsula which they dominate with such sternness. Rising near the River Danube, the mountains climb by steps to 9,500 ft., Sofia itself being at the 2,000 ft. level on the western edge of the range; then it descends more steeply on its southern side towards Greece

THE CENTRE OF THE BALKANS—THE KINGDOM OF BULGARIA AND ITS BORDERS WITH GREECE AND TURKEY

The reason for Turkey's interest in Bulgaria can well be seen; the borders of the two countries are contiguous from the Black Sea to Adrianople. In this map the recently acquired Dobrudja area—acquired from Rumania only a few weeks ago—is included within the Bulgarian borders. This stretches from Balchik to near Constanta

SOFIA, CAPITAL OF BULGARIA, LIES IN THE CENTRE OF AN UPLAND AND IS THE HEART OF THE BALKAN COUNTRIES

With a population of less than 500,000, Sofia has for decades been one of the storm centres of south-east Europe. It lies in the western half of Bulgaria and occupies a very strategic position in the Balkans, commanding the routes to Istanbul, Belgrade, Macedonia and the Danube. For a long time it was held by the Turks, but in 1878 the country was freed by the Russians, when it became an autonomous Principality under the Suzerainty of the Sultan of Turkey until 1908. In the latter year, the country was proclaimed an independent kingdom and Prince Ferdinand (later to become known as "Foxy Ferdinand") became its first King. Since 1880 the city of Sofia has been almost entirely renovated in the "European" style; the narrow tortuous lanes and mean houses of the Turkish epoch have almost disappeared, and a new town with straight parallel streets has been constructed. To the east and west of the town flow two tributaries of the Iskar, and away in the distance rise the mountain ranges of the Balkans

THE SURPRISINGLY MODERN ASPECT OF SOFIA, THE BULGARIAN CAPITAL, WITH BIG BUILDINGS IN THE MODERN STYLE

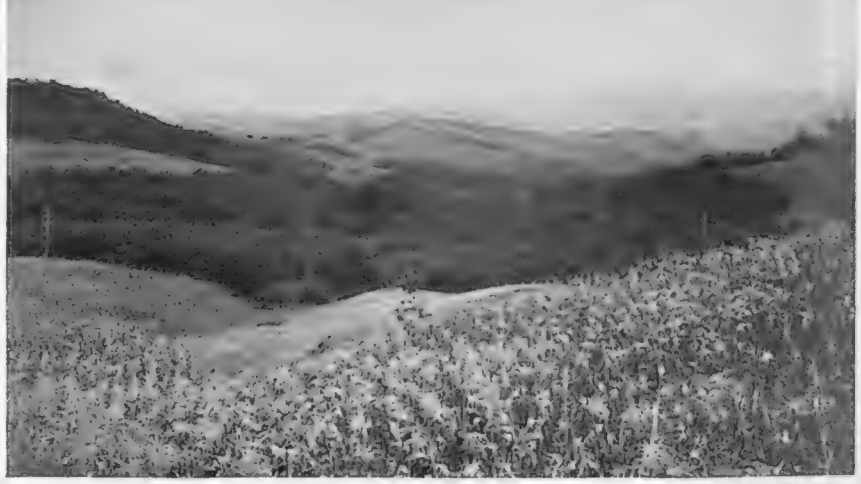
Although it has only shaken free of the Turkish yoke within modern times, Sofia presents a surprisingly "modern" appearance. But although much improved and modernised since its emancipation, Sofia has few striking features, the chief buildings being the Royal Palace, the Government Offices, the new Cathedral of St. Alexander, and the University: the last has 1,500 students in normal times. Lying in a basin traversed by the Iskar River, Sofia is an important station on the Orient express route to the Bosphorus: it is 400 miles from Istanbul, and 280 miles from Bucharest to the north-west. Sofia has a considerable general trade, and exports maize, silk, linen, cloth and hides

SALONICA, THE PORT THE ITALIANS DID NOT GET

SALONICA, CHIEF COMMERCIAL PORT OF MODERN GREECE, AND THE WIDE PLAIN OVER WHICH THE ITALIANS WOULD HAVE ADVANCED: Salonica stands at the Eastern end of the Gulf of Salonica; in peace-time its natural position with numerous lines of supply coming from the North assures its general prosperity. The wide plain on the borders of which it lies, had an unsavoury reputation for malaria during the last war when a large Allied force held Salonica as a strategic point; the swamps of the Vardar took a heavy toll. The river rises some 200 miles away in the district of Kossovo. Another stream, the Vistritza, waters the plain still farther to the west. There is a smaller mountain-enclosed plain to the north. The whole area is bordered by the Nije, Kojuk, Paik, and Kara mountains. Of the towns figuring on the borders of the plain, Edessa in the foothills of the Nije Mountains is one of the oldest, its history stretching back to the times of early Macedonian history

WHERE THE FOOTHILL ROADS APPROACH THE MOUNTAIN BORDERS OF NORTH-EAST MACEDONIA: The roads from the south towards Yugoslavia and Bulgaria wind and twist through the intervening hills until they reach the frontier mountain ranges. This view is typical of a huge proportion of the land surface of modern Greece

Thessaloniki (Salonica), the busy port of modern Greece, lies on the southern edge of the historic district of Macedonia. Edessa and Thessaloniki were two of its famous cities in classic times. The latter figures in sacred history as the city to which St. Paul wrote two Epistles while he was staying at Corinth, Timothy being the bearer of the Apostle's inquiries regarding the spiritual welfare of the Christians living in Thessaloniki. In the era of Philip and Alexander the fame of Thessaloniki and Macedonia were greatly increased. Then at a defeat of the Greeks at Pydna, the area became a Roman province; a triumphal arch exists to this day in Salonica, wedged in between modern buildings but still bearing a sufficiency of sculpture to arrest and hold the imagination of the traveller. Saracens, Normans and Venetians have all appeared here as temporary conquerors; then intervened a long period under the old Turkey of Stamboul and the Porte. Then the freeing of Greece placed Salonica within the frontiers of the modern Hellenic world; it is to be hoped that the rapid strides in advancement made by Greece in recent times will be only temporarily interrupted by the clash of war with Italy



WHERE PLEASANT ROLLING HILLS APPROACH THE PORT OF SALONICA: One of the charms of Greece is its variety of scenery, the wild and rugged changing to idyllic hollows with woods and flowers. Numerous stretches of low hills such as these near Serres border the fertile plains of Macedonia

THESSALONIKI, AS THE GREEKS NOW CALL IT, IS A BUSY CITY AND PORT, CROWDED WITH MODERN BUILDINGS: This, which is only a portion of the sea front, is sufficient to show why Salonica has been coveted by Italy. The name of the port—Thessaloniki—has no immediate connection with Thessaly, the Greek province to the south-west; the city is said to have gained its name from Thessaloniki, the wife of Cassander (c. 315 B.C.)

The NAVY'S REPLY to the AIR THREAT

By Commander Edgar Young, R.N. (Retired)

HOW A BATTLESHIP DEFENDS ITSELF AGAINST AERIAL ATTACK: The view is taken looking aft, and shows both port and starboard pom-pom batteries ready for action. On every modern battleship the anti-aircraft armament is very heavy indeed — it ranges from 4-in. anti-aircraft down to Lewis and machine-guns. It would be a very daring pilot who ventured down within range of this armament; his chances of escape would indeed be slight! As Commander Young points out in the accompanying article, the new idea in anti-aircraft gunnery is to create a "zone" of fire by these multiple pom-poms. Each of them fires a high explosive 2-lb. shell, at a rate of 200 rounds a minute

THE advent and development of aircraft as a weapon in naval warfare has necessitated, of course, the development of counter-measures, which may be classified either as "passive," or as "active."

Under the heading of "passive," with which it is not proposed to deal in this article, may be considered the provision, or the strengthening of deck-armour, to withstand bombs, the screening of bridges and other exposed positions against machine-gun attack, and the provision of steel helmets (and possibly of body-armour) for personnel who must work in exposed positions which cannot be so screened.

The "active" counter-measures may be further sub-divided into three classes:— (1) "Strategic," that is to say, those relating to the selection and protection of Fleet Bases, to the distribution of the Fleet between those Bases, and to the restriction of the use of warships (or of certain types of warship) in waters where they are liable to attack by aircraft. (2) "Tactical," that is to say, those relating to the cruising and battle formations to be used by warships (or by convoys), and to the manœuvres to be executed in the event of attack by aircraft. (3) "Defensive," that is to say, those relating to the repelling of attacking aircraft by gunfire from the ships attacked.

It is with the last of these sub-categories alone that this article will attempt to deal.

It need hardly be stated, in the first place, that, just as the development of the use of the torpedo necessitated the augmentation of the secondary armament of capital ships (which were the most gravely menaced by that weapon), so the development of the use of the bomb and of the air-borne torpedo has necessitated the augmentation of the anti-aircraft armament of *all types of warship*—for it is not only, nor even principally, the capital ship which is menaced by the new aerial weapon, though the capital ship, because of its high cost and slow rate of replacement, is probably the object of more concern in this connection.

This augmentation has been effected in various ways, as can be seen by a comparison between the anti-aircraft armaments of the older and of the newer types in the British Navy. The number and calibre of the anti-aircraft guns has been increased, both directly (the Queen Elizabeth type, for instance, have had the number of their 4-in. anti-aircraft guns increased from four to eight), and indirectly, by increase of the maximum elevation of their low-angle armament. Thus, for instance, the 6-in. guns of our older cruisers had a maximum elevation of between 30 and 45 deg., but that of the 8-in. and 6-in. guns of our newer types is of 70 deg., while in the types now coming into commission, such as the battleships of the King George V type, and the aircraft-carriers of the Illustrious type, the anti-aircraft armament is presumably for alternative use as their secondary armament against torpedo-craft, for no other secondary armament is provided—this logical and sensible measure, which effects considerable saving of space and weight, has naturally necessitated some modification of the gun mountings.

The guns which have been mentioned so far are intended primarily for use against high-flying bombers or torpedo-planes. They would be supplemented, especially during a fleet action, when the secondary armament of the battle fleet might be required for the repelling of destroyer attacks, by the anti-aircraft batteries of the special anti-aircraft cruisers.

THE PORT POM-POM BATTERY COMES INTO ACTION: How terrific the din must be is indicated by the gunner with his hands shielding his ears; each shell fired from this large battery detonates on the very slightest contact. The pom-poms fire at a very rapid rate and are most deadly when dealing with low-flying dive-bombers which must come down into the "zone of fire" before they can reach their objective

For the repelling of dive-bombing, of low-flying attack with machine-gun, and of attack with torpedo in its final stages, a different type of weapon is required. This is because the exceedingly rapid angular movement of the attacking aircraft in relation to the ship attacked and the no less rapid change of the range between render the usual forms of fire control inapplicable. It is obvious that no human being or gunnery instrument could calculate with sufficient rapidity the range and deflection to be put on the gun-sights, or the fuse-setting to be used, or, still less, could apply them in time to be of use. Instead, therefore, of relying on the destructive power of a comparatively large projectile, scientifically and skilfully aimed at the aircraft, recourse is made to a "barrage" system, whereby a deadly zone is created, through which the aircraft must pass in order to deliver its attack.

This "zone" is created by the fire of the multiple pom-poms, or of the multiple machine-guns, that are now mounted in most of our warships, including many of our destroyers and escort vessels. The former fire a 2-lb. high-explosive, with a fuse which detonates them on contact with the slightest obstacle to their flight, at a rate of 200 rounds a minute from each of the four, six, or eight barrels, and can therefore create a very dense dangerous zone covering a fairly wide area. It requires considerable space, however, and is by no means a light weapon, while it can easily be appreciated that the ammunition which it consumes each minute represents no small weight.

It is therefore not suitable as a weapon for mounting in the smaller types of warship, where it is replaced by the half an inch multiple machine-gun, which fires solid projectiles of 690 grammes at a rate of from 350 to 450 a minute from each of its four barrels, thus making up in numbers for the smaller size of its projectiles. In the case of both these weapons, the provision of a certain proportion of tracer ammunition enables the control officer or the gunlayer to move his zone as may seem necessary.

It is too soon yet to boast that these counter-measures are adequate for the achievement of their purpose, but the recent successes of such ships as the coastal sloop, H.M.S. *Lowestoft* (Commander A. M. Knapp, R.N.), which brought down a Heinkel with her first shot, would seem to indicate that they are.

AIR COMMENTARY BY C. G. GREY (Founder of "The Aeroplane")

LEADERSHIP AND SO ON . . .

The Scheme—Turned Down by the Air Ministry—for Increasing Load and Range of Our Big Bombers; The Air War over the Atlantic; and the Coming of the "Flying Fortresses"

SOMEWHERE around Oxford — traditionally the home of lost causes—is a man named John Waller who has ideas and knowledge, dangerous possessions. I imagine him to be a young man, for he edits a quarterly magazine, "Founded in War-time Oxford," called *Kingdom Come*, which outwardly is of the family of the various weird, esoteric, eccentric, eclectic and other sorts of publications in which the very young who have cleverness without intelligence and education without knowledge have exhibited themselves for generations—all more or less derived remotely on one side from Calverley and on another from *The Yellow Book* of Aubrey Beardsley and his gang—except that generally they lack wit and humour.

But *Kingdom Come* is something different, for Mr. Waller starts "Volume 2, Number 1, Autumn 1940" with this sentence under the heading which I have stolen from him to put at the top of this article: "It is the tragedy of the British that they are prouder of the Charge of the Light Brigade than they are of the Battle of Blenheim; that they would rather celebrate what is gloriously inefficient than what seems to have been won with brains rather than by valour."

He goes on — "And for this reason our most successful generals—Marlborough and Wellington—have had to contend with their own countrymen as much as with the enemy. . . . If we are to win this war we must first wake up to facts. The policy of muddling through, of waiting for the enemy's move, and then replying in the most obvious way, of neglecting almost entirely that intellectual leadership provided by good propaganda and new ideals . . . this policy has lost us everything in Europe we once held, everything we might have hoped to gain.

"The war of to-day will be won by brains or lost by incompetence. It will not be won by a strategy which is always upon the defensive, it will not be won by an organisation which is not at least as efficient as that of a multiple store, it will not be won by leaders and generals who do not think, who do not propose a new world to take the place of the old, who do not put forward an ideal to be enthusiastic about but instead seek to inspire a conscripted soldiery with such phrases as: 'We are all pacifists, we are all fighting for peace, but it must be our peace, the peace we dictate.'"

I think highly of Mr. Waller. He has a lot more to say of the same sort, all of it progressive and forelooking, and very different from the much-publicised tosh which has for years poured from the Oxford Union Society. Mr. Waller seems to represent the good old Oxford "hearty" become vocal.

How right he is. We are justly proud of our fighter squadrons beating the Hun at 10 to 1 odds against, in aeroplanes designed in 1933 or 1934. But we are not doing anything about hanging the pseudo-scientists and self-appointed technical experts who have so argued and intrigued and messed about that our bigger, better, faster and more heavily armed and longer-ranged fighters are only now coming through in quantities and were not in action a year ago, as they ought to have been.

We are justly proud of our bomber crews who plough through an atmosphere composed mostly of shell-bursts to bomb canal aqueducts with deadly accuracy, or to hand out H.E. exactly on the right spot in oil refineries. But what have we done, or are we likely to do, to the Supply and Research people in the Air Ministry who send the youngsters—and a lot of first-class officers who are not at all young—on these jaunts in flying barns which were on the drawing-boards six or eight years ago?

IN CHARGE OF THE ROYAL CANADIAN AIR FORCE IN BRITAIN: AIR COMMODORE L. F. STEVENSON: Born in Canada forty-five years ago, Air Commodore Leigh Forbes Stevenson began his military career in 1911: in October, 1914, he enlisted in the 32nd Canadian Expeditionary Force Battalion and served with that unit until May, 1915, when he transferred to the 6th Battalion C.E.F. in France. In July, 1916, he received his commission and in 1917 was seconded to the R.F.C., being employed on flying duties till February, 1919. He was absorbed into the Canadian Air Force in 1924. From January, 1929, to September of that year he was R.C.A.F. Liaison Officer in London, subsequently being posted to the Royal Naval College at Greenwich from which he graduated in January, 1931. In his present capacity as A.O.C. the R.C.A.F., Air Commodore Stevenson has headquarters at Canada House, Trafalgar Square

ANOTHER LONG-DISTANCE OBJECTIVE IN GERMANY: THE CITY OF DRESDEN AND SOME OF THE POINTS BOMBED THERE BY THE R.A.F.: A few days ago the R.A.F., in pursuance of their policy of extending their bombing objectives in Germany itself, paid a visit to the great Ilse Bergbau Synthetic Oil Refinery at Ruhland, near Dresden. A heavy raid followed. Having gone so far, and being so near to Dresden itself, it seemed unfriendly not to look in on the city itself. So the R.A.F. decided to pay a little visit to the home of the Dresden china industry, and during the course of it, quite an amount of china must have been broken! And thus the city experienced its first air raid. During the course of this attack, considerable activity was noted by the low-flying British raiders whose bombardment lasted from 9.15 until nearly 11 p.m. Gas, water and electricity installations were bombed and large fires were started on one of the city's main railway junctions. The raiders encountered the type of weather to which the R.A.F. are now becoming accustomed on their long distance flights; and they came across much low cloud, being further hampered by intense darkness: nevertheless, they successfully carried out their full programme

And what are we likely to do to people in authority, who when a new and sound engineering principle is put up to them, first of all take it up enthusiastically, then turn it down, and then pick it up again, and turn it down again, and write officially saying, "We see no objection to the publication of these patents," and after that take it up again under political pressure, and then allow the publication of the whole scheme for the benefit of the enemy?

That has all happened within the past ten months. The initial idea goes back three years. Possibly the Germans knew about it then, for I *have* heard of a German patent which embodies the same principle. But even German officials have been known to pigeon-hole things and forget them. So why remind them about it, or rather why tell them all about the scheme and so save them the trouble of looking for it in their archives?

The article in which the scheme was published, in a most respectable weekly technical paper, appeared on November 21 after a challenge to the whole technical side of the Air Ministry, in the form of a threat or promise to publish it, had appeared in that paper a week before. So this was not a matter of censorship at all. It was a matter for the Ministry of Home Security as well as for the Air Ministry's technicians.

Whether, after changing their minds so often they decided to treat the invention and the challenge with contempt, or whether they decided to call the challenger's bluff does not matter. As I wrote when I first met the invention, and the inventor was told, in effect, to publish and be damned, "if the invention has the germ of an idea in it, we don't want it to go and germinate in Germany."

What the invention amounts to is this: The Germans, as we know to our cost, have for some weeks been using high-speed single-seat Messerschmitt fighters as fast night bombers, with a couple of 250-lb. bombs slung underneath. They are harder to catch with searchlights or night fighters, and harder for the gunners to hit, than the ordinary big bombers. They have also been using their lighter and faster two-motor Messerschmitt and Junkers fighter-bombers.

This scheme, or invention, if it works, as many able technical men believe it can, would enable aeroplanes in those categories to carry three or four times the weight of bombs and to fly nearly twice as fast. Now, is that an idea to give away to the enemy without giving it a fair trial? Is it a notion to be turned down on the theoretical calculations of people—some of them the same individuals—who turned down retractable undercarriages, variable pitch airscrews, slots and flaps, and other things which are now standard fitments?

They are the same crowd who derided shaft-driven propellers, until Lawrence Bell in the U.S.A. and Dornier in Germany proved that they worked. And they derided the idea of burying the motors in the structure of the aeroplane, till the same Lawrence Bell did it, and now, as with the variable pitch airscrews and things, we are buying them from the States.

What fate is bad enough for people who thus hinder our war effort? In 1918, when the Air Ministry came into being at the old Hotel Cecil, where Shell House still stands in spite of German bombs, it was known all

Drawing by S. Drigin

THE WASTAGE OF PILOTS IS WORRYING GERMANY: THE "RAFT" IS HER LATEST DEVICE TO CUT DOWN LOSSES IN PERSONNEL

The enormous loss of German air crews is a great worry to the *Luftwaffe*, and they are doing everything in their power to save these men when they are brought down in the Channel. The latest device is a raft, numbers of which have been strung along the Northern French coast. Each raft is built to withstand the heavy seas, and is equipped with a shelter. Inside are provisions, a French soldier's uniform and a small wireless set which operates an automatic S O S. This illustration shows part of the crew of a bomber which was forced to land in the sea after being damaged by anti-aircraft fire during a raid on London. The men have rowed to the raft in their collapsible rubber boat and are scrambling on board. They will then switch on the automatic S O S and wait until a German E boat hears their signal and picks them up

over London as the Hotel Bolo—after Bolo Pasha, a Franco-Egyptian spy who was caught and shot by the French in 1915 or 1916—because everybody in it was, by popular repute in the Air Services, either actively interfering with our war efforts or just standing looking on. I give our technicians who have been guilty of this astounding action credit for being fools and not knaves, but the net result may not be very different. And as we still have a free Press, I take it that I am free to express such an opinion.

Also this is not a statement or an opinion which is calculated to cause alarm and despondency because I know just about what we have in the way of new stuff coming through, and I know the new men who are at the tops of the Commands of the R.A.F. which will have to use it. I have never been so firmly optimistic as I am now. But that does not alter the fact that the new men might have had better weapons if the technical leaders had not been such fools. All that we can do is to be thankful that for all their efficiency the Germans have been still more foolish. And we know that we can always beat them by extemporising where they depend on long range planning—that is our genius.

And now let us consider the air war over the Atlantic. The Admiralty Censorship has let out that H.M.A.C. *Illustrious* was one of the bases from which the attack on Taranto was made. The fact that there were half a dozen or so more aircraft-carriers of the same class abuilding two years ago is well known. They must be on the water and possibly in commission by now. There is the way to the command of the Atlantic and the assurance of the safety of our shipping.

The aircraft from three or four such ships, plus flying-boats from Berehaven and Lough Swilly (whether the Eirish like it or not), plus more flying-boats from Newfoundland, could keep constant patrol in one long string on the North Atlantic shipping lane. No commerce raider could escape being seen, and thereafter sunk by torpedoes and bombs, and no submarine could emerge for long enough to charge its batteries.

The absurd convoy system, hitherto necessary, which ties fast ships to slow ones could be abolished. Every ship could go flat out all the way, under cover of the persistent air escort. At night the risk would be no greater than it is in convoy at present, in fact it would be less because the submarines would be driven by day to keep off the shipping lanes.

Don't believe me if you don't like. But our Glorious Victory at Taranto is only a small manifestation of what some of us have been preaching to bone-headed stick-and-string admirals for most of twenty years. And "I'm not arguing, I'm telling you" about how to protect shipping.

If ever you want to hear sound sense about the war get hold of an old and chatty soldier—not a decayed member of the General Staff, but an "old sweat" in the ranks. Months ago, when the Germans were down on the Loire, actually the day when the French Government at Bordeaux packed up their war, I picked up a private on that long arid road to Newmarket—he was hitch-hiking to Thetford. He said, "Well, I reckon that our old Channel is better than any of their Maginot Lines, the Jerries can't swim their tanks across it." And how right he was.

A few days ago, coming away from a military hospital "somewhere in south London" where they fit artificial legs of aluminium (incidentally invented by that pioneer aviator Marcel Desoutter, who lost a leg in a crash at Hendon in 1911, and built himself a new one), I picked up a grey-haired sergeant who had come out of Dunkirk. Said he, "I don't believe in this huge German Air Force. When Göring wants to smash Coventry he has to call off his raids everywhere else. If he had such a hell of a force as we've been told he could keep all the raids going at once."

Which is sound sense. I knew pretty well what the German aircraft industry was in June, 1939, and I never have believed in the hugeness of the *Luftwaffe*.

From neutral countries we hear (I mustn't say that it is a rumour or the Censor will cut it out) that the Germans are taking men off making tanks and turning them on to making aeroplanes. I wonder.

Whoever is going to invade the other's country *must* have enough fighters to get and hold complete command of the air for 50 miles inland from the enemy's coast. Otherwise a landing cannot be made, against air attack at sea and on the coast. And the air must be cleared for 50 miles inland to make sure of the safety of camps and munition dumps and hospitals along the coast after the landing.

On the other hand, if the defenders have plenty of tanks the superiority of the invaders in the air is not so important, unless the invaders also have first-class anti-tank and ground-strafing aeroplanes, which no nation has at present. Perhaps the Army will see that it gets them, now that there is a real Army Co-operation Command. That is a need which Air Marshal Sir Arthur Barratt must see is fulfilled.

Who is responsible for keeping from the British taxpayer, who in the last stage owns the things, information which is freely published in the American papers about our new aeroplanes? Those papers get to Germany by way of Russia, and probably Sweden and Spain, so why are *we* not allowed to know what they say about our machines. Even though it may be just as much bunkum and ballyhoo as the stuff they publish about their own Flying Fortresses and gyroscopic bomb-sights; at any rate our aircraft firms would get the same free advertising that the Americans get.

There have been wonderful yarns in the American papers about British-built "flying fortresses." Sir Archibald Sinclair in a speech a week or two ago referred openly to the Stirling. So why all this hiding of "a secret known to everybody but ourselves"—as the late W. E. de B. Whittaker used to call this kind of nonsense in the last war.

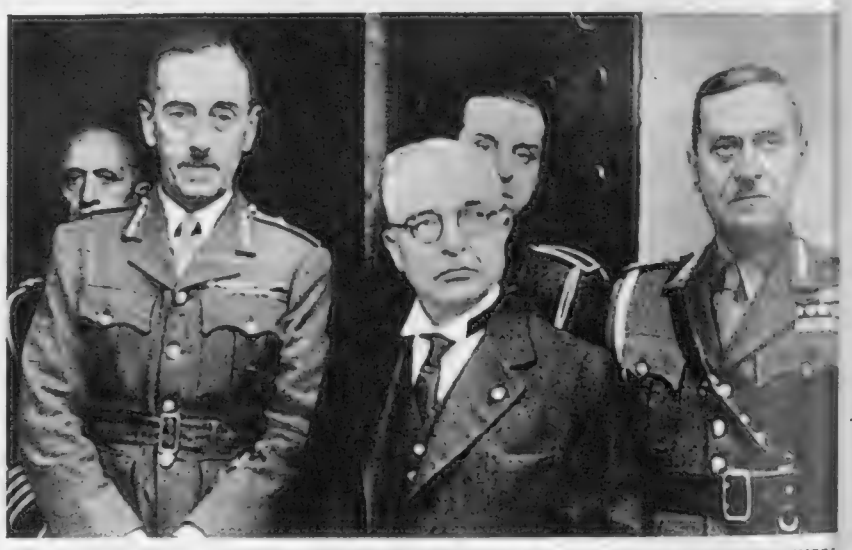
Also the Americans have had vivid descriptions of new, super-fast, super-armed British fighters which are now being built in quantities. They are worth publishing if only to remove from the British public the idea that the British aircraft industry is asleep. But in the meantime, why do all our British newspapers boost American products? Even if we shall never pay for what they send us, seeing that we have not paid for the supplies of the last war, there is no need to pay in advance, on a kind of *per contra* advertising account, to the detriment after the war of our own aircraft manufacturers.

My friends in Canada tell me that the Imperial Air Training Scheme, or the British Dominions Air Training Scheme, or the British Empire Air Training Plan, or just the Joint Air Training Plan, according to one's degree of Imperialism or Dominialism, is going strong. Now I see that an eminent newspaper has stated that the Royal Canadian Air Force "is not contemplating the use of American flying fields."

My notions are exactly the opposite. In the last war our Canadian flying schools went down to Fort Worth, Texas, U.S.A.—but then the U.S.A. were Allies. Now they are only what a wag called "sympathallies." Nevertheless, as we have leased British territory to the U.S.A. for use as sea and air bases, much as Finland has leased bases to the U.S.S.R., at the price of a few obsolete destroyers hauled off the scrap-heap, surely the U.S.A. can lease us for a few months some of their huge second-hand and barely-used aerodromes. Flying off and on to compressed snow is all very well, but it does not work during three weeks of freeze-up and three weeks of thaw-out—which mean losing six weeks, or one-eighth of a year's flying hours. That means a lot of pilots and gunners.

THE FIRST CONTINGENT OF R.A.F. PERSONNEL LAND FROM A BRITISH WARSHIP: The scene on the quayside, with an audience of excited Greeks who witnessed the prompt arrival of aid for the tiny, but efficient, Greek Air Force. All the men—R.A.F. personnel and New Zealanders—who arrived with the first contingent, were transported to Greece by British warships; and they met with no interference from the Italians

AN HISTORIC MOMENT: THE BRITISH G.O.C. STEPS ON TO GREEK SOIL: General Sir Archibald Wavell, G.O.C.-in-Chief Middle East, actually landing for consultations with the Greek Premier. The instant response by Britain to Greece's plea for aid has made a deep impression on the Greeks—and on the Balkans generally! The R.A.F. immediately went into action in support of the Greek Army



THE GREEK PRIME MINISTER AND THE COMMANDER-IN-CHIEF: General Alexander Papagos has already proved himself a great General and a sound strategist; in the centre is General John Metaxas, Greek Premier; and on the right is Major-General Gambier-Parry, British liaison officer with the Greek Army

OFFICERS OF THE R.A.F. LAND BY AEROPLANE AT A GREEK AIRFIELD: Within a few days of the outbreak of the war, the British R.A.F. was co-operating with the Greek Air Force. The latter, efficient as it is, is hopelessly outnumbered by the Italians; the R.A.F., however, were soon able to level up the odds—and quickly swept the Italians from the sky. They dive-bombed the invading troops, smashed up the ports in Albania, carried out reconnaissances, and generally contributed to the Italian rout. Their prompt action has been recognised everywhere, and their public appearances are made almost embarrassing

READY FOR THE ITALIAN TROOPS AND BASES: A formidable cargo of bombs lined up by the R.A.F. on a Greek airfield ready for a flight of British bombing aircraft over the enemy's bases in Albania. The bomber pilots seen in the picture are the men who will carry out the flight; their work has already been crowned with considerable success!

BRITISH FORCES in GREECE: First Pictures After British Troops had Landed

THE BISHOP OF CANEA BLESSES BRITISH BREN CARRIERS AND LIGHT TANKS: When the mechanised vehicles and troops of the advance British forces arrived on Greek soil they received the warmest of welcomes from the populace. The Bishop of Canea held a service of Benediction; each soldier kissed the Cross and received the Episcopal blessing before going up to the front

EVERYWHERE THE BRITISH TROOPS WERE RECEIVED WITH ENTHUSIASM: Here a mechanised column of British troops is seen passing through a Greek town on its way to the front: all the inhabitants along the route turned out in force to greet their British Allies

ON THE LOOK OUT FOR ITALIAN RAIDERS IN CRETE: As well as the landing in Greece itself, British troops have also landed in Crete which is now being used as a base for our forces. Here is an anti-aircraft gun, manned by British soldiers, ready to repel Italian attacks by air

Amid scenes of great enthusiasm, with thousands of Greeks tumultuously applauding, a number of British warships recently slipped into a Greek harbour, their decks packed with British and New Zealand troops and airmen. While anti-aircraft crews stood ready to repel any raiders, army lorries, tanks and men were disembarked on to Greek soil. Within five minutes the first lorries were already on their way through frenzied crowds to the town, while behind them men and material poured in a continuous stream from all the ships. These men represented the full complement necessary for the defence and maintenance of the British air bases and consisted of members of the R.A.S.C., engineers, mechanics, Air Force ground staffs and New Zealand sappers. Major-General Gambier-Parry, British liaison officer with the Greek Army, and Air Commodore J. H. d'Albiac, commanding the British Forces in Greece, were both present throughout the disembarkation

PRISONERS: A GROUP OF ITALIAN AIRMEN FORCED DOWN ON THE ALBANIAN FRONT AND NOW PRISONERS OF WAR IN GREECE

PRISONERS: ITALIAN INFANTRYMEN ON THEIR WAY TO DRAW RATIONS AFTER CAPTURE: Already many hundreds of Italians have been taken prisoner by the Greeks, together with great stores of material and supplies. To judge from this picture, the Italians are of good physique and in good condition—which makes the recent Greek exploits all the more meritorious

GENERAL METAXAS WITH AIR COMMODORE D'ALBIAC AND GENERAL PAPAGOS (THE GREEK C.-IN-C.) AT THE FUNERAL OF THE FIRST BRITISH AIRMAN TO BE KILLED IN GREECE

THE FUNERAL OF A BRITISH R.A.F. SERGEANT IN GREECE—THE FIRST ENGLISHMAN TO FALL IN ACTION: The R.A.F. sergeant was rear-gunner in a British bombing aircraft; his funeral was made the occasion for a great military display at which the Greek Premier himself was present. It is proposed later to erect a public memorial to this first British soldier to be killed in the defence of Greece

RIVER GIRLS NOW SLEEP IN THAMES DUNGEONS: Girls of the River Emergency Service have twice been bombed out of their shore billets; they have now found sanctuary in dungeons that have stood empty for more than a century. These are on the Thames and are two floors below ground level: during the Napoleonic Wars they were used to house French prisoners. The River Emergency Service was first formed with the object of taking first aid to vessels in the River Thames

THE UNQUENCHABLE SPIRIT OF THE LONDON COCKNEY: A fruit-stall vendor carries on his business amidst the ruins—and does good business with customers who are also uncowed by the terroristic methods of the bombers. The notice on his barrow runs as follows: "Hitler's bombs can't beat us. Our oranges came through Musso's lake"

THE NEW LORD MAYOR VISITS THE BOMBED AREAS: During his recent visit to the East End of London, the Lord Mayor (on the left) was met and escorted round the damaged areas by the Mayors of the various districts. Here he is chatting to some of the "Children of the Ruins," who can still smile despite all they have gone through

A SANCTUARY FROM THE BOMBING IN SALISBURY CATHEDRAL: Until a few weeks ago, little Terry lived in Liverpool with his mother and three sisters; his father is in the R.A.F. overseas. Then the little family was bombed and Terry's mother decided to seek sanctuary. She found it in the cloistered calm of Salisbury Cathedral, where more than fifty mothers with their children have found a home away from the raiders

AFTER THE RAID—REPLENISHING THE DAMAGED WATER SUPPLY: Children living in a West Midlands town carry jugs and bowls to replenish the domestic supplies after their mains had been affected as the result of an overnight raid

AFTER the AIR RAIDS

Pictures Showing Scenes in Various Parts of the Country After the Passage of the German Night Raiders

LEARNING THE TRUTH ABOUT THE CASUALTIES: Inhabitants of a Midlands town reading the Ministry of Information notices. These give the actual facts concerning raids and thus dispel rumours

THE SIGHT PRESENTED BY A POPULAR SHOPPING ARCADE IN A MIDLANDS TOWN AFTER IT HAD BEEN DAMAGED BY BOMBS IN ONE OF THE RECENT HEAVY NIGHT RAIDS

THE "DUG-OUT" WHICH IS THE NERVE-CENTRE OF A RAILWAY: This long narrow dug-out, 6 ft. under the earth, is the place from which a great system is controlled during air raids. At desks literally full of telephones reports of damage are received and passed on to the repair crews. Temporary hold-ups are reported and corrections in the running-times of trains are passed on to the rail crews. News of the train services is also broadcast to the public by means of a network of lines to the stations affected

CARING FOR THE ANIMAL VICTIMS OF THE BOMBERS: Great work is being done by the National A.R.P. Animals Committee in treating animals injured or rendered homeless by enemy action. These are collected and cared for until their owners have been traced or have recovered from any injury they may have suffered. If the animals are not claimed or cannot be found homes, they are then painlessly destroyed

A BISHOP HOLDS A SERVICE FOR SHELTERERS: The Bishop of Croydon is here conducting a service in a public air raid shelter. Afterwards, he visited the canteen and watched the shelterers pass the time away with a game of darts

FIELD KITCHENS BEING TESTED AT THE COUNTY HALL: Various types of field kitchens and foods have been undergoing tests at the County Hall in London: the object has been to test new suggestions for the preparation of meals at the many communal feeding centres which have now been established in the capital. The meals prepared are afterwards supplied at low cost to members of the L.C.C. Staff and to the Home Guard employed at the County Hall

BRIGHTENING UP THE LONDON "PEEPSHOW" WINDOWS: It has been suggested that artists of repute should be invited by West End shopkeepers to design distinctive decorations for the blank spaces which now surround many of the "peepshow" windows. The Leicester Galleries have had their make-shift window decorated in the form of a theatre proscenium arch with a splash of crimson surmounting the columns: this now frames the small window

HEATH ROBINSON HELPS TO BRIGHTEN UP LONDON: W. Heath Robinson and Norman Keene are now at work painting on the hoardings which now cover many London windows. They paint "Robinsonesque" designs to illustrate the particular merchandise in which the shop deals. Mr. Robinson does the originals and Mr. Keene carries out the actual work on the shop fronts

AN A.F.S. ARTIST PAINTS SCENES AMIDST THE RUINS: Mr. Rudolf Haybrook, who designed dresses and scenery for the Gaiety Theatre before the war and who is now in the A.F.S., makes rapid drawings of blazes during lulls in fire fighting. He has been granted special permission, and occasionally sets up his easel at night and works by the light of the flames. He is now on sick leave, having been injured in a recent raid

THE NEW-STYLE PAVEMENT ARTIST IN TRAFALGAR SQUARE: At St. Martins-in-the-Fields, "Rem" the pavement artist has discovered an entirely new clientele. Members of the forces leave their photographs with him, and a few days later he delivers a finished portrait. This is sometimes quite a lucrative business, as a satisfied "sitter" has been known to pay the pavement artist as much as £5 for his portrait

The World of Books—By Vernon Fane

VARIETY for the BOOKSHELF

Jacob Epstein's Autobiography: A Book for Wine-Lovers: Historical Miniatures: "Escapist," Light and Crime Fiction

JACOB EPSTEIN has always been a controversialist. Like most artists, he is sensitive to criticism; but, unlike those who are content to answer criticism in their own work, he has seldom missed an opportunity to take up the cudgels in print whenever a fight offered.

LET THERE BE SCULPTURE (Michael Joseph. 18s.) is the kind of autobiography which one might have expected from Jacob Epstein. There is, of course, the record of his life, beginning with his birth in New York in 1880, his early apprenticeship to his art, his translation to Europe and inevitably, first of all, to Paris. A noteworthy item in this phase is that on his second day in Paris he went with a great procession to Emile Zola's funeral at the Cimitière Montmartre, and witnessed the clashes between the *gendarmes* and the anti-Semites. He came to London in 1905 to see if he could work here. He found a studio in Fulham, and settled down.

It is significant that this section of his autobiography takes up but thirty-two of the pages of a long book running to 320 pages, and that the chapter immediately following is headed "Strand Statues: A Thirty Years' War: 1908."

These figures, it will be remembered, excited a storm of controversy when they were revealed. Mr. Epstein describes it as a storm of vituperation that was totally unexpected and unprecedented in its fury. There were letters to *The Times*; the statues were examined by policemen from Scotland Yard; and the Archbishop of Canterbury was even persuaded to mount ladders and make a close inspection of them

There was an awful row, but it simmered and almost died down, only to break out again in 1937, when the present owners of the building decided to demolish the statues.

From the erection of the Strand statues onwards Jacob Epstein's work and career became punctuated by a series of acrimonious disputes, which flared up simultaneously with the appearance of each of his important works. There was the Hudson memorial called *Rima, Consummatum Est* and later the *Adam*. The accounts of these controversies, among others, are followed by chapters on journalists and publicity—"Dog Eats Dog" (in which the art criticsare dealt with), "The Position of the Artist Now," "Sculptors of To-day," and "My Place in Sculpture."

There is also a chapter called "Portraits," in which the sculptor sets down his impressions of some of his most famous sitters, who include such diverse characters as Lord Beaverbrook, George Bernard Shaw, Alfred Einstein, Haile Selassie, Lord Fisher, the Duke of Marlborough, Joseph Conrad and R. B. Cunninghame Grahame.

In this book Mr. Jacob Epstein has let the sparks fly with the same vigour as presumably they fly from a block of stone under his capable chisel. The world of art and the sum total of man's aesthetic advancement may, or may not, be the richer for his work; but it is certain that posterity will find in this record a valuable postscript to it.

Mr. Maurice Healy once wrote a book about Claret which all good wine lovers will have on their shelves beside the standard works of George Saintsbury. Mr. Healy is also a *raconteur* and a stylist of some renown, so that it is with pleasurable anticipation that we open the pages of a book entitled STAY ME WITH FLAGONS (Michael Joseph. 10s. 6d.).

More nonsense is probably talked and written about wines in general and brandy and port in particular than about any of the so-called pleasures of man. It is not a subject for such careless flippancy. It is a subject to be approached with reverence, and not without a profound knowledge, not only of wines, but of geography and the differences in soil as between various vineyards and the varieties of the crops themselves.

Mr. Maurice Healy not only has this knowledge, but is able to translate it into easy conversational tones for the benefit of those who know what they like; perhaps are not so sure why they like it; and possibly have only the sketchiest idea of how such delights are produced and brought to their table.

What he has to say is full of ripe wisdom, and based on a deep knowledge of his subject; but it is also lightly told, with many a pointed anecdote thrown off in the manner which has made him famous as an after-dinner speaker. Some of his friends—that is to say friends whom he has made through his writings—will be surprised to learn from him that really good burgundy knocks spots off the best of the clarets. Let it be added, however, that the really good burgundy is the rarest of rare wines. Some of us who know that may be titillated by Mr. Healy's good fortune, and hope that one of these days we may happen upon one of those rare and heroic vintages.

The Ifs and Ands of history have always been a fruitful ground for the popular historian. If, for instance, somebody had not forgotten to shut the Kerkeporta, the Forgotten Door, Byzantium might never have fallen to the hordes of Mahmud, and the whole course of European history might have been different. What might have happened had Grouchy not blindly obeyed Napoleon's orders of the fateful day of June, 1850?

Mr. Stefan Zweig's *The Tide of Fortune* (Cassell. 10s. 6d. net) is described in a sub-title as twelve historical miniatures; and each of them deals with a crucial moment in the history of the world, when the fate of peoples and countries depended on some unappreciated incident. These studies range from the death of Cicero to the launching by Woodrow Wilson of his fateful Fourteen Points.

There is the story of the conception and the laying of the first Atlantic cable; the account of Scott's dash to the South Pole; the moment in 1917 when a train pulled out of Zurich station taking Lenin back from obscurity and exile to make the Union of Soviet Socialist Republics.

Mr. Stefan Zweig is a historian of some eminence and repute; and out of each of these studies he draws the moral and points it with accustomed dexterity.

In his new novel, HOW VAINLY MAN . . . (Methuen. 8s. 6d.), Mr. R. J. Minney takes back to the days when one could write a sente like "Margaret got to Cannes in the morning There were a lot of English people about bronzed men who must have come out of Army in India. There were also lots of ty and shop girls, who had been able to get as fa this because of the organised tours and cheapness of the franc."

It is a pleasant and competent novel; and perhaps the only less pleasant thing about it is hero. But it is none the worse for that. Mr. Minney obviously knows Fleet Street as well or perhaps better than, he knows the Riv and there is an authentic touch in his scenes about that famous street.

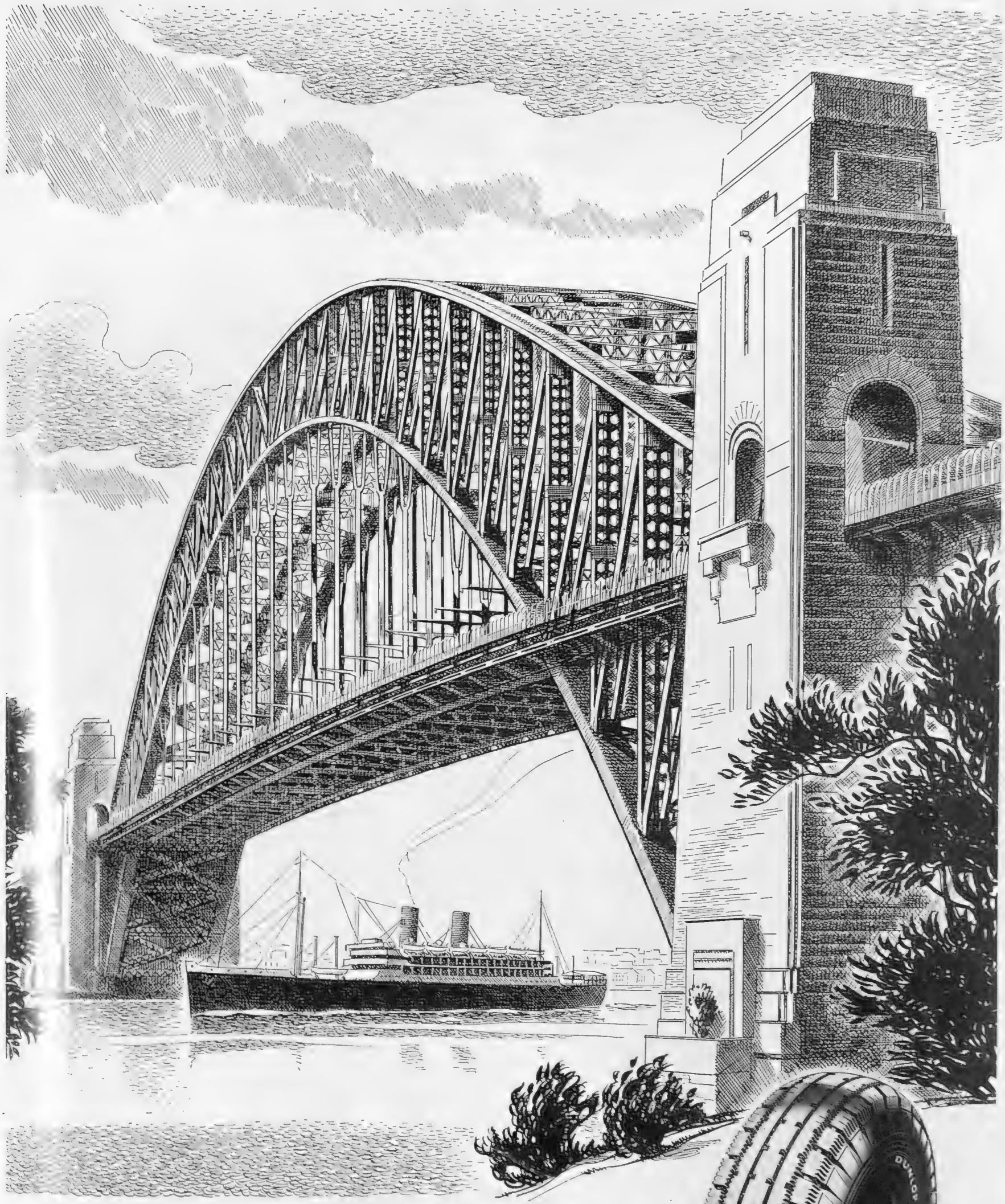
Mr. Jerrard Tickell also applies his lively talent to a piece of light fiction called AT DUSK ALL CATS ARE GREY (Chapman and Hall. 8s. 6d.) Mr. Tickell's theme concerns that fantastic field of commercial enterprise known as the advertising agency. Joanna Shirley was the daughter of a baronet, but, unfortunately for all concerned, he was also a farmer, and went broke, like most farmers, before the war. In the advertising world Joanna found an extraordinary crew of people living in a world of their own, in which every known form of trickery, jealousy, and dishonesty appears to be practised.

The heroine also gets mixed up with a Nazi German, and almost becomes embroiled in the espionage system. Then the war comes, and busts up everything—Nazis and advertising men alike. Joanna is fortunate to be able to return to the soil from which she sprang.

If none of Mr. Tickell's characters exactly leaps into life, or if his story does not exactly plumb the fundamentals, at least he has a good humour and a lively pen, and cannot be denied marks for a good piece of entertainment in these days.

In these dark nights many of us have reason to be grateful for a good detective novel, so that the announcement of BLACK PLUMES, by Margery Allingham (Heinemann. 8s.), is indeed welcome. I don't know who are "The Big Five" as announced by the publishers as being pre-eminent among detective novelists, but I am quite certain that Miss Margery Allingham is one of the few writers of this kind of fiction who can be read for the excellence of her story and her technique as well as for the ingenuity of her plots.

The reviewer does no service to his readers by discussing or even hinting at the plot of a detective story. It is sufficient to say that in this one Miss Allingham is at the top of her form, and that one reader at least was unable to put it down until "They reached the bridge, and paused to look over the parapet. Big Ben blinked down on them, and the coloured advertisement signs from up river stained the water below." That, I submit, is the stuff to give us in a black-out.



Engineers of all nations pay the tribute of respectful admiration to Sydney Harbour Bridge, eight years in the building. Fifty years of ceaseless progress lie between the pneumatic tyre invented by John Boyd Dunlop, and that other peerless British achievement — the DUNLOP tyre of to-day.

DUNLOP TYRES

AN AXIS SHORTAGE

Which May Influence Further Strategy—Germany's Lack of WOOL and COTTON

THE ASTOUNDING RISE IN NEUTRAL IMPORTS OF COTTON—TWO WAR YEARS COMPARED: All these six neutral countries vastly increased their imports of the indispensable war product cotton during two vital years. Italy heads the column with the immense rise to 442,000 tons over 229,000 tons in 1939

WHEN the Romans invaded Britain 2,000 years ago one of their first acts was to establish a wool factory whence the occupying army could be supplied with warm clothing. For the climate of northern Europe, then as now, was uncharitable to the outdoor man, and the wise military commander even at that time realised the importance of keeping his legions comfortable and warm. Throughout the ages, moreover, nothing has been found to equal wool for the purpose, and to-day vast quantities of this textile are being consumed by the growing armies of the world. Only second in importance comes cotton, used for munitions as well as cloth. But what about Germany and Italy—how can they obtain their vital supplies of these commodities?

The fact is—and it is a fact that many people have overlooked, so firmly has their attention been fixed upon the oil and foodstuffs position of the Axis—that Germany and Italy to-day are exceedingly hard-pressed for both wool and cotton, and their present military strategy may be actuated largely by the necessity of obtaining supplies. Egypt has cotton, South Africa grows wool, and Japan, having bought hugely from Australasia in recent years, can possibly send woollen manufactures via Russia.

But the actual wool and cotton position of the Axis, apart from such ambitions, may be quickly assessed. Where does the world's wool come from? The average annual output of all wool-producing countries in peace-time was about 1,700,000 metric tons. The output of Europe was about 201,000 metric tons. So practically all the wool came from overseas. The British Dominions and South America supplied the most. Since the capitulation of France, however, Europe has been closed to the outside world.

All British-controlled wool was, of course, carefully blocked by our Ministry of Economic Warfare at the beginning, but a certain amount of the commodity seeped in through the neutrals. We had to allow the passage of some, and with one accord they all took more than they needed. Now, however, most of those leakages have been stopped by Hitler's own action.

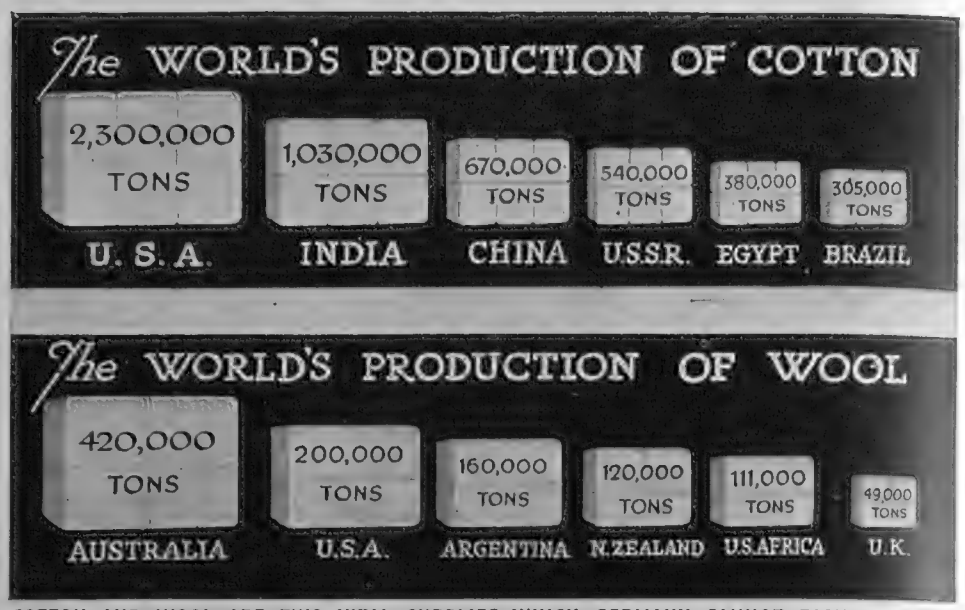
Undoubtedly Germany did her best to stock up before the war. I know Australia and New Zealand well, and remember how the presence of German wool-buyers, eager to purchase at all costs, used to make us fear another war.

Whenever the European buyers became so eager, we knew that war-clouds were looming. But towards the end Germany and Italy were both hampered in their efforts, not only by British action. Their stocks of foreign exchange were dwindling. They could not afford to buy all they wanted.

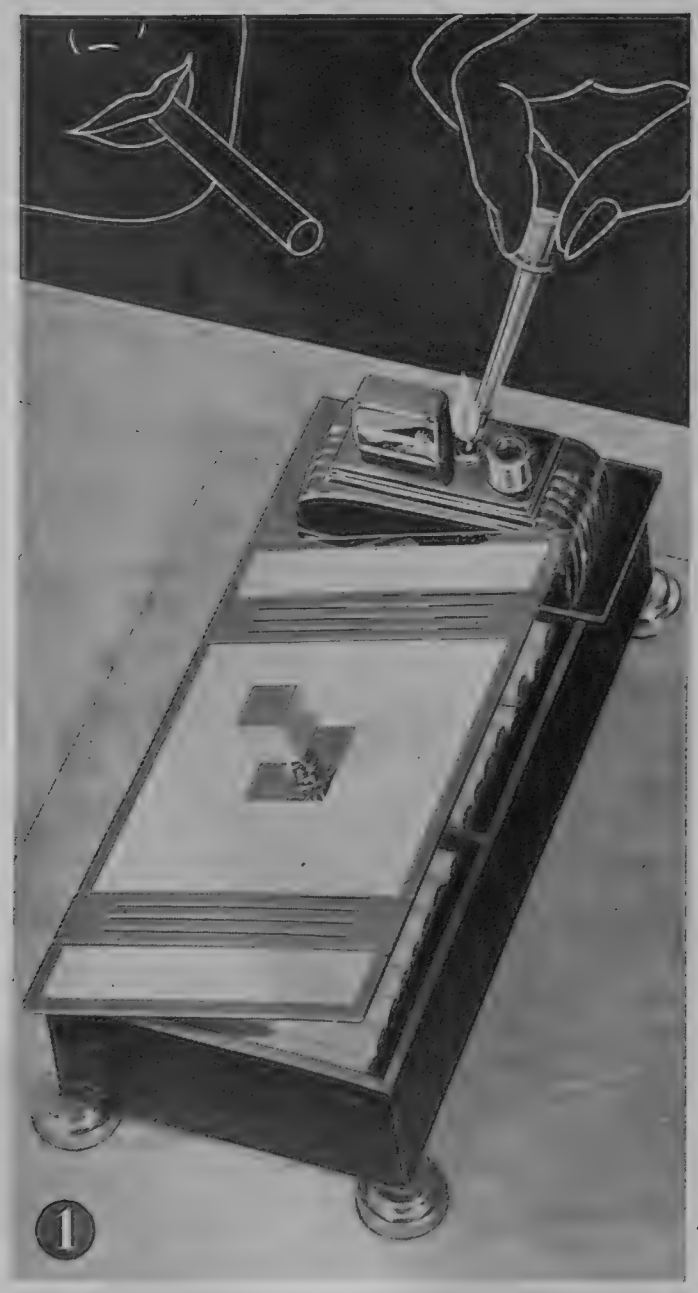
Thus Germany turned feverishly to the contrivance of a wool-substitute. Once again she was unlucky. Wool fibre proved almost impossible to copy. The notorious *Vistra*, a glassy substance, was produced, but was t[oo] on its own, and had to be mixed with [re]al wool. The result, *Wollstra*, which cl[ai]: half Germany to-day, is a very shoddy t[hi]: and its propensities in wet weather hav[e] provided Berlin cross-talk comedian[s] some of their best gags. Even this, ever, is only one-third substitute. Th[at] is that real wool has unique qu[a]: Germany recognised this at last wh[en] decided, just before the war, to con[cen]: upon the improvement of artifici[al] production, incorporating *Vistra* it[self] rayon fabrics.

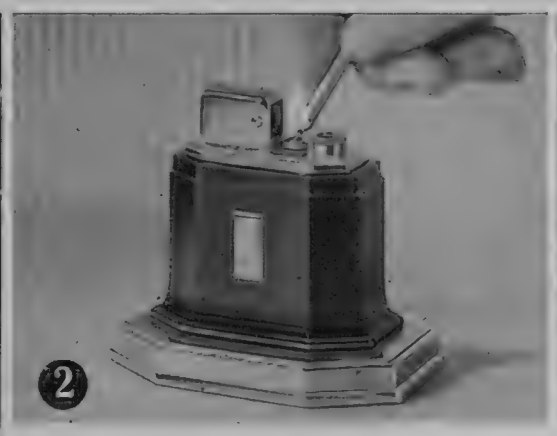
But it is manifestly impractic[able] clothe European armies in artificial s[ilk]: unfortunate civil population of the R[eich] be forced to wear anything. Even th[e] rulers of Germany realise, however, their armed forces are not warmly and [ef]clad, and have a plentiful supply [of] blankets, the game will soon be over. just as simple as that. There is, a substitute for wool.

D. C.



COTTON AND WOOL ARE TWO VITAL SUPPLIES WHICH GERMANY CANNOT EASILY OBTAIN: The U.S.A. heads the list as the biggest producer of cotton, with Brazil at the other end of the list. Australia figures at the head of the wool-producing countries, with the United Kingdom a small producing area, but, as we think, of the very best. Europe does not figure in the usual lists of wool-producing countries, the quantities being too small to be considered in relation to the big producing countries. Very little cotton is now being allowed to enter Europe





Burning Question— *and the answer!*

THERE may be a shortage of matches—but who cares when Ronson lighters are as slick and dependable as ever? With their perfect finish and never-failing one-hand action, Ronson are gifts to brag about. And remember—when you give a Ronson you give something that lasts a lifetime.

1. Cigarette Box and "Touchtip." *16353. Chromium and black and white or tortoise-shell and ivory enamel,* **63/-.**

2. "Touchtip." *2104. Enamelled table-lighter in black, white, turquoise, maroon, green or tortoise. Holds 6 months fuel supply,* **31/6.**

3. Rondelight. *14407. Table or Desk-Lighter in black with chromium or coloured bands. Holds 6 months fuel supply,* **35/-.**

RONSON

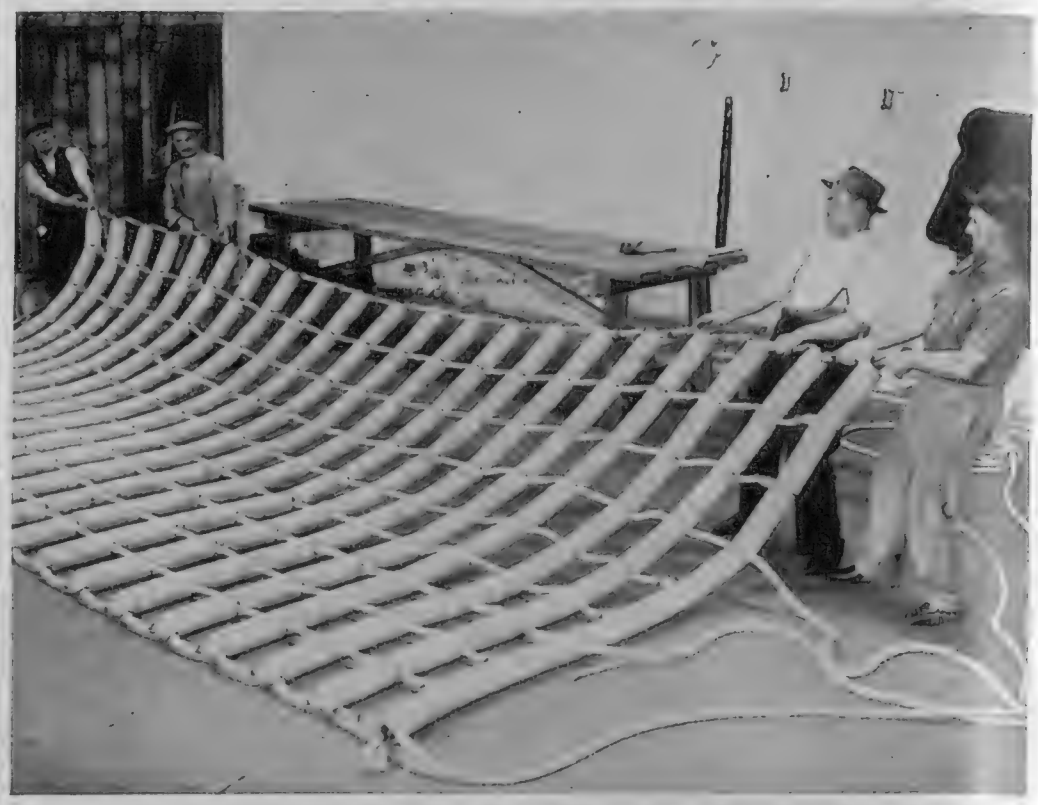
THE LIGHTER THAT LIGHTS

Let "Home Guards" fortify their steps
With Tonic Water made by Schweppes

The "FLOATING NET" that may SAVE THOUSANDS

GIRLS AT WORK BINDING THE SECTIONS OF ROPE WHICH MAKE THE FRAME FOR THE SECTIONS OF CORK

THE COMPLETED "FLOATING NET," WHICH CONSISTS OF SECTIONS OF CORK HELD TOGETHER IN A FRAMEWORK OF ROPE



A COMPLETED NET, SHOWING ITS GREAT FLEXIBILITY AND ITS GREAT STRENGTH

An ingenious life-saving device is now being manufactured in this country which will add materially to the safety of crews at sea. The "Flotanet" has been used for a few years past by both the Mercantile Marine and the Royal Navy; it has been approved by the Ministry of Shipping, and it is now being adopted by many shipowners; it is likely that it will become part of the life-saving equipment of every ship now building. The Floating Net is a buoyant platform of net formation which will support persons for an indefinite period. The buoyancy is formed by cork arranged on a rope framework in meshes of 12 ins. by 12 ins. throughout. Eight such squares are designed to support one adult man or w The net is made in standard sizes sup from five persons upwards; sizes for tw twenty are the most frequently required advantages of the net are numerous; it stowed practically anywhere on a sh takes up very little space; two men ca it overboard when wanted; and the automatically unroll itself on the surfac sea. Persons can leap on it from a con height without injury and with full co It will retain its buoyancy under th adverse conditions and cannot be machine-gun fire. No effort is required people supported by the net to keep it

15 minutes of Physical Training—

have a **CHURCHMAN'S No. 1**

to see you through it!

★ In the National interest empty your packet at time of purchase and leave it with your tobacconist.

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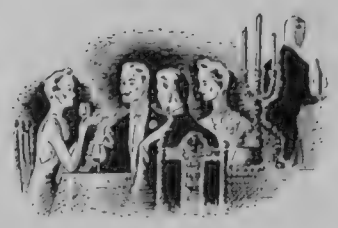
There is no more delicate compliment you can pay to your guests, and no more lively satisfaction you can give yourself, than to serve OTARD'S BRANDY at the close of a meal.

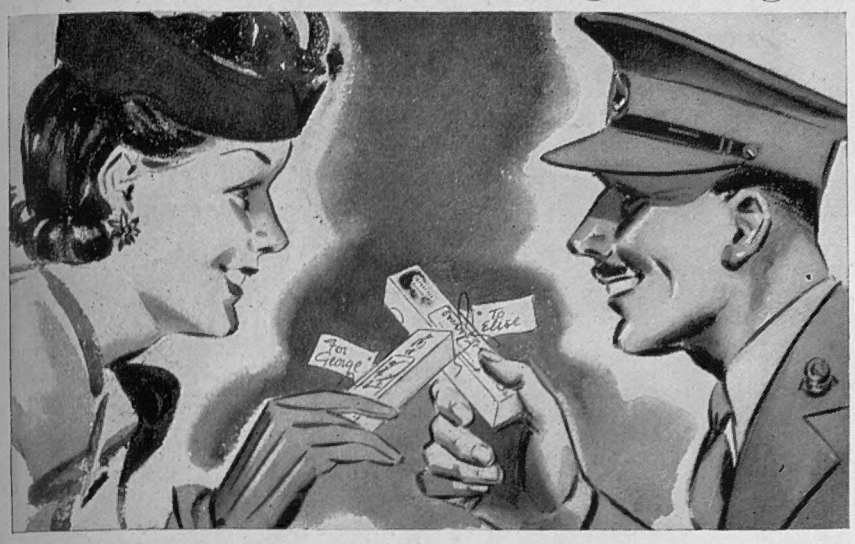


It is a wise plan in these times to have a bottle or two of Otard's handy against any emergency that may arise.

OTARD'S BRANDY

Famous since 1795. The ONLY Brandy actually bottled at the Chateau de Cognac.

Two minds with but a single thought!



They both agree—there's no Christmas gift like a Swan! For Swan Pens make such supremely suitable presents—practical and lasting, they are easy to pack, easy to send and *sure to please*. Remember, too, that their efficiency and reliability under all conditions make them specially suitable for those on active service or in training.

SWAN PENS

AT PEACE-TIME PRICES—Leverless Swans, 17/6 to 42/-. Visofil Swans, 25/-. Lever-filling Swans from 10/6. Blackbird Pens, 7/6 (Ladies' size, 8/6). Fyne-Poynt Pencils from 5/-. Gift Sets (pen and pencil in presentation case) from 13/6. Of all Stationers and Jewellers.

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That enormous stock of ready to wear clothes we've so often told you about is going to stand you in good stead. *Enormous* being an accurate description, it follows that Moss Bros. are in a position to fit you out with ready to wear clothes for quite a little time at prices unaffected by the purchase tax. It would be wise to take advantage of this as soon as you can. While there's no need to *rush* to Covent Garden it's as well to remember that even the largest stocks eventually become exhausted and new stocks must carry the tax.

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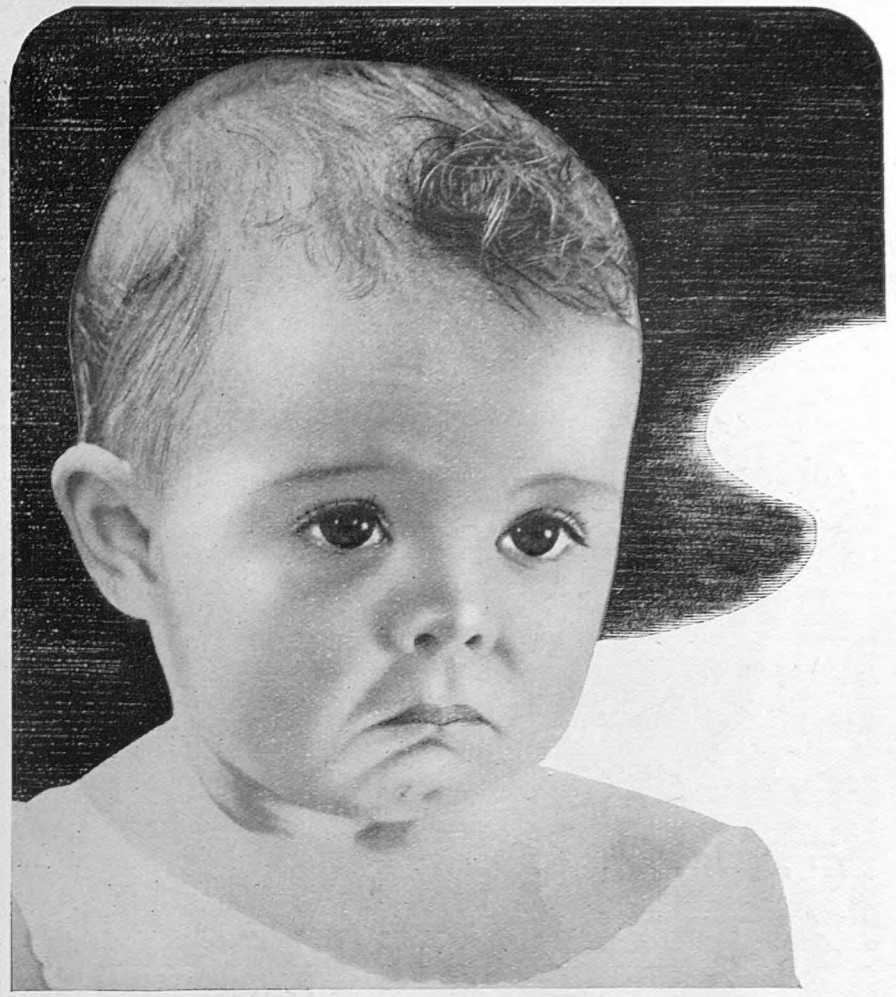

Photo by courtesy of the Mennen Co.

WHAT! NO FATHER XMAS?

Perhaps not. It all depends on you. You can bring Christmas cheer to him, and others. Whatever your own individual needs—spare something to ease the burden of the very poor this Christmas.

The terror of the air "Blitz," with its aftermath of homeless destitution, has added to the struggle against poverty, depression and despair.

Yet, war or no war, little children look for something extra at Christmas. The lonely, aged folk and the poorest of the poor hope for their Christmas parcels. The Salvation Army will gladly be "Father Christmas" to them on your behalf.

Please send your gift—marked "Christmas Fund"—to General Carpenter, 101 Queen Victoria Street, London, E.C.4.

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Lightweight meals

FOR NIGHT-LONG RAIDS

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Every time we eat something that is grown and manufactured in this country we save valuable shipping space that can be used for bringing us munitions of war. That is why thousands of people get an extra satisfaction out of Vita-Weat, for the wheat that goes into it springs from British soil, and British machines and British workmen turn it into the delicious crispbread that you know.

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WELCOME ALWAYS · KEEP IT HANDY

The drink that cheers and warms

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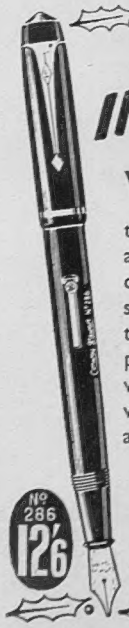

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THE SPHERE TRAVEL BUREAU—*Continued from page iii of cover.*

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In Quest of Good Hotels

By ASHLEY COURTENAY

VACANT accommodation just now is a needle-searching-haystack sort of business. Bath, Torquay and Paignton are full and have been so for some time, and the Postmaster-General's Department alone is benefiting from the hundreds of inquiries and letters of regret pouring in and out of these towns.

There is always a solution to every problem, if only people would realise that in war-time it is necessary to seek out pastures new, and there are still delectable spots to be found where the wail of the siren is either unknown or comparatively rare.

First of all, I can give details this week of limited accommodation at certain guest houses of my knowledge, for there are always a number of readers writing to me who, because of reduced incomes, are unable to look beyond the 3 or 3½-guinea mark per week.

At Bigbury-on-Sea, about 20 miles east of Plymouth, is a well-known holiday guest house called "Korniloff." Well known to the public in normal holiday periods, it has almost been forgotten in these days of war. Yet there is not a sound or sign of the present conflict, and here for the moment, because the demand does not exceed the supply, Miss Yeoman will welcome people from 2½ guineas per week.

Recently, too, I have made a fresh discovery at Dawlish Warren, South Devon. Here, tucked away in a peaceful oasis, is a thatched-roof home called "Marylands," where on my suggestion anthracite stoves are being installed in the bedrooms, so that one can be sure of warmth there by night and day.

Nor must I forget whilst on the subject of guest houses, though I have mentioned it before, "Rosevine," in the Roseland Peninsula of South Cornwall, overlooking the little harbour of Portscatho. Here, whenever I have visited "Rosevine," the sunlight has been dancing through the palms, the bedrooms ever seem gay with colour, and there has been such a homeliness about "Rosevine" that one wonders why in days of war those seeking accommodation get so obsessed with the idea of town life.

Yet another guest house, where some people I sent last June are still installed, is the "Old House," Cerne Abbas, in the heart of Dorset's hinterland. I am also reminded, before concluding the subject of guest houses, that Miss Eliott, who runs the charming "Wide Sea Guest House," Downderry (now requisitioned), has transferred her staff and her residence to Carwythenack, Downderry, Torpoint, and has only a few vacancies. Here is yet another place where one can always be sure of peace and plenty.

But for those who must think in terms of the big town, with the accompaniment of concerts and cinemas, I would point out that people are flowing fast back to Bournemouth. In the summer there was an official ban on visitors, but unofficially it is now removed, and Canford Cliffs Hotel is now filling up, as is the remaining limited accommodation of the town.

If those thinking in terms of Bournemouth care to write to me, and let me know of their requirements, I will send them first-hand knowledge of the present situation and accommodation available.

Another place which provides a pleasant war-time anchorage is Falmouth. True, they have spasmodic air-raid alarms, but they are a mere nothing to London and other much bombed centres. Recently I visited the very comfortable Hydro Hotel, where they have got such an excellent warm and safe subterranean shelter that I asked Miss Rowe her inclusive terms for permanent accommodation therein. A very homely hotel is the Hydro, where all the unpleasantness of tipping has been abolished, by the institution of 10 per cent. being added to the bill, and very well it works out for all concerned.

For those who prefer to be outside Falmouth, yet within hail for shopping purposes, there is either the Budock Vean Hotel, on the Helford River, or the Ship and Castle Hotel at St. Mawes, across the water.

But reverting to the country, there is, at the time I happen to be writing, very limited accommodation at the following places:—

Woodcote Hotel, Dulverton. One double-bedded room for the winter months, at £5 5s. each. Miss Jeeves' one trouble is that she has limited accommodation, and the majority of her inquiries are for single rooms. For those who are on the look-out for first-class comforts and food in a small way they would do well, even if they cannot get in now, to put themselves on the waiting list for the winter. Those who do stay there quickly recognise that they are on a good thing.

The Dragon House, Washford, Somerset. Limited double-bedded accommodation here. Another country-house hotel, which is nearly always full the year round in peace or war-time. It is the old story. Good fare, good beds and warmth are ever an irresistible magnet.

Then there is *Fuidge Manor, Spreyton, Mid-Devon.* You won't find it on the map. But if you follow the Exeter-Okehampton road you will see Whiddon Down, and Fuidge is two miles north. I question whether there is a safer place in the whole country. The only occasional bang is someone rabbit or game shooting. Sirens are unknown. Yet here in the fastness of the country is plenty to occupy one's day. Riding, walking, gardening, and within, billiards, bridge, squash rackets and congenial people to meet in the club bar. Only one or two double rooms available at £10 10s. each for the winter months.

Once more a word about Christmas and the New Year. It is mostly a wasted effort writing to hotels this year which do not advertise their willingness to accept people for the short holiday season. The Grand and the Headland hotels, Torquay, specially asked me to tell readers that, whilst they are prepared to consider applications for winter residence, they cannot accept bookings for Christmas and the New Year only. At the present time they are having to refuse some thirty applications daily for Christmas. In this column I would advise readers to search for hotels which are able to accept Christmas and New Year bookings. One such is the Sun Hotel, Coniston, in the Lake District. Whilst it is a school in term time during the war, it reverts to its normal occupation as an hotel in the holidays.

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters, accompanied by a 2½d. stamp for reply, should be addressed to him, c/o the Editor, THE SPHERE, *32-34, St. Bride Street, London, E.C.4. Personal and telephone inquiries, however, cannot be accepted.*

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Christmas 1940 will, alas, see many homes saddened by the ruin which evil in the world has caused. The 1,000 children now in the Society's Homes are but representatives of these homes which have been saddened, but the children must not suffer now they are under such care. And so a very urgent appeal is made for generous gifts to enable these children to have a Christmas such as they may never have known before. You WILL send a gift, won't you? Please address it "Sphere," 164, Shaftesbury Avenue, London, W.C.2, from which address it will be gratefully acknowledged.

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Spend them in the heart of the country, yet only 75 minutes from London. Enjoy the best of good fare in lovely surroundings. All-weather tennis court. Golf.

AND *NOW*, Mr. Business-Man!

If you must stay within reach of Town during the war, why not make your base at

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Frequent electric trains reach London in half an hour. A most comfortable, quiet hotel, a lovely garden, excellent tennis courts. Telephone: 2271

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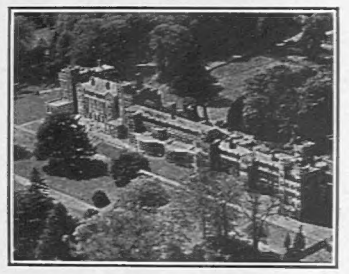

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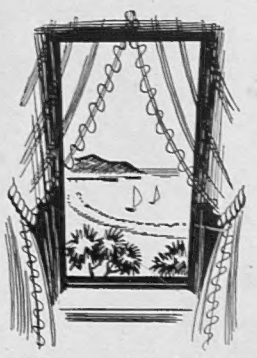

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A cuisine far removed from the ordinary.

All under the personal direction of Mr. D. Tschumy, born and trained in Switzerland.

THE HEADLAND HOTEL TORQUAY

A first-class unlicensed hotel run in connection with the Grand, where every facility for recreation is free.

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Continued on facing page

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PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD.,